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分 冊

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出願番号 特願2003-102206

[ST.10/C] : [JP2003-102206]

分冊番号 9 / 9

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PRIORITY DOCUMENT

出証番号 出証特2004-3059660

1	5	10	15
Leu Thr Lys Ile Asn Trp Arg Lys Lys Arg Lys Lys Lys Lys Glu Glu			
20	25	30	
Lys Lys Arg Glu Lys Glu Pro Glu Lys Pro Ala Lys Pro Leu Thr Ala			
35	40	45	
Glu Lys Leu Gln Lys Lys Asp Gln Gln Leu Glu Pro Lys Lys Ser Thr			
50	55	60	
Ser Pro Lys Lys Ala Ala Glu Pro Thr Val Asp Leu Leu Gly Leu Asp			
65	70	75	80
Gly Pro Ala Val Ala Pro Val Thr Asn Gly Asn Thr Thr Val Pro Pro			
85	90	95	
Leu Asn Asp Asp Leu Asp Ile Phe Gly Pro Met Ile Ser Asn Pro Leu			
100	105	110	
Pro Ala Thr Val Met Pro Pro Ala Gln Ala Thr Pro Ser Ala Pro Ala			
115	120	125	
Ala Ala Thr Leu Ser Thr Val Thr Ser Gly Asp Leu Asp Leu Phe Thr			
130	135	140	
Glu Gln Thr Thr Lys Ser Glu Glu Val Ala Lys Lys Gln Leu Ser Lys			
145	150	155	160
Asp Ser Ile Leu Ser Leu Tyr Gly Thr Gly Thr Ile Gln Gln Gln Ser			
165	170	175	
Thr Pro Gly Val Phe Met Gly Pro Thr Asn Ile Pro Phe Thr Ser Gln			
180	185	190	
Ala Pro Ala Ala Phe Gln Gly Phe Pro Ser Met Gly Val Pro Val Pro			
195	200	205	
Ala Ala Pro Gly Leu Ile Gly Asn Val Met Gly Gln Ser Pro Ser Met			
210	215	220	
Met Val Gly Met Pro Met Pro Asn Gly Phe Met Gly Asn Ala Gln Thr			
225	230	235	240

Gly Val Met Pro Leu Pro Gln Asn Val Val Gly Pro Gln Gly Gly Met

245

250

255

Val Gly Gln Met Gly Ala Pro Gln Ser Lys Phe Gly Leu Pro Gln Ala

260

265

270

Gln Gln Pro Gln Trp Ser Leu Ser Gln Met Asn Gln Gln Met Ala Gly

275

280

285

Met Ser Ile Ser Ser Ala Thr Pro Thr Ala Gly Phe Gly Gln Pro Ser

290

295

300

Ser Thr Thr Ala Gly Trp Ser Gly Ser Ser Ser Gly Gln Thr Leu Ser

305

310

315

320

Thr Gln Leu Trp Lys

325

<210> 4120

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4120

Met Pro Gly Ser Cys Ala Glu Met Arg Thr Cys Ile Leu Ala Gly His

1

5

10

15

Gly Gly Ser Leu Ser Asn Leu Met Asp Phe Val Lys Lys Thr Gly Ile

20

25

30

Cys Ala Ser Lys Trp Glu Trp Gly Thr Thr His Asn Phe Leu Tyr Lys

35

40

45

His Gly Gly Ile Arg Asp Lys Ile Met Ser Ser Arg Lys His Leu His

50

55

60

Leu Val Asp Ala Gly Leu Ala Ile Asn Thr Pro Phe Pro Leu Val Leu

65	70	75	80
Pro Pro Thr Arg Glu Val His Leu Ile Leu Ser Phe Asp Phe Ser Ala			
	85	90	95
Gly Asp Pro Phe Glu Thr Ile Arg Ala Thr Thr Asp Tyr Cys Arg Arg			
	100	105	110
His Lys Ile Pro Phe Pro Gln Val Glu Glu Ala Glu Leu Asp Leu Trp			
	115	120	125
Ser Lys Ala Pro Ala Ser Cys Tyr Ile Leu Lys Gly Glu Thr Gly Pro			
	130	135	140
Val Val Met His Phe Pro Leu Phe Asn Ile Asp Ala Cys Gly Gly Asp			
	145	150	155
Ile Glu Ala Trp Ser Asp Thr Tyr Asp Thr Phe Lys Leu Ala Asp Thr			
	165	170	175
Tyr Thr Leu Asp Val Val Val Leu Leu Leu Ala Leu Ala Lys Lys Asn			
	180	185	190
Val Arg Glu Asn Lys Lys Lys Ile Leu Arg Glu Leu Met Asn Val Ala			
	195	200	205
Gly			

&lt;210&gt; 4121

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4121

Met Ala Asn Arg Asp Ser Ala Ser Pro His Ser Pro Pro Arg Arg Arg
1 5 10 15



Arg Cys Leu Gly Gly Pro Thr Val Leu Pro Leu Arg Lys Ile His Ala  
                     20                    25                    30  
 Gly Cys Tyr Gly Pro Gln Pro Pro His Arg His Pro Arg Pro Leu His  
                     35                    40                    45  
 Thr Val Ser Leu Pro Ser Pro Asn Thr Leu Leu Pro Gln Pro Gly Asp  
                     50                    55                    60  
 Pro Trp Met Glu Asp Trp Ala Ser Gln Ser Gly Arg Gln Asp Gln Arg  
                     65                    70                    75                    80  
 Val Cys Glu His Thr Cys Val Pro Ala Asp Met Pro Gln Asp Pro Arg  
                                     85                    90                    95  
 Asp Ala Pro Ala Pro Val Thr Trp Cys Gln Ser Tyr Leu Gly Asn Trp  
                     100                    105                    110  
 Pro Phe Trp Phe Arg Val Asn Trp Glu Val Lys Pro Leu Gly Phe Val  
                     115                    120                    125  
 Glu Lys Arg Thr Val Arg Glu Met Leu Cys His Leu Val Arg Lys Thr  
                     130                    135                    140  
 Phe Phe Leu Ser Ser Lys Ile Met Met Gly Phe Phe Trp Ile Cys Phe  
                     145                    150                    155                    160  
 Thr Asn Lys Ser Asp Trp Ser Ile  
                                     165

<210> 4122

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4122

Met Asn Pro Gln Ala Trp Thr Gly Ala Pro Glu Glu Ala His Thr Leu

1                      5                      10                      15  
 Leu Leu Ser Leu Leu Leu Ile Phe Ser Val Trp Leu His Leu Cys His  
                     20                      25                      30  
 Ser Cys Cys Thr Asp Leu Cys Met Pro Gly Lys Ala Lys Leu Ala Gln  
                     35                      40                      45  
 Lys Ala Thr Gly His Leu Cys Lys Val Val Pro Gly Ala Gly Gly Pro  
                     50                      55                      60  
 Ala Thr Asn Leu Thr Cys Cys Arg Ser Ala Tyr Ile Ser Ser Ser Thr  
                     65                      70                      75                      80  
 Leu Glu Val Gly Pro Gln Cys His Met Leu Phe Leu Arg Pro Leu Leu  
                     85                      90                      95  
 Tyr Gln Ser Ser Gly Ser Asn His Ser Gly Cys Gly Asn Leu Ala Ile  
                     100                      105                      110  
 Pro Pro Ser Leu Ser Ser  
                     115

&lt;210&gt; 4123

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4123

Met Val Leu Cys His Arg Gly Phe Tyr Tyr Tyr Asn Ile Lys Leu Glu  
 1                      5                      10                      15  
 Val Val Leu Val Pro Gly Val Cys Ser Glu Phe Pro Glu Glu Arg Glu  
                     20                      25                      30  
 Gly Gln Gly Leu Asn Gly Met Gln Asp Asn Trp Asn Ala Pro Ile Ser  
                     35                      40                      45

Leu Ala Asp Thr Asp Pro Val Ile Pro Gly Ala Gly Arg Asp Leu Glu  
 50 55 60  
 Ala Leu Val Ile Cys Arg Val Asn Gly Glu Gly Arg Gly Lys Gly Leu  
 65 70 75 80  
 Leu Gly Gly Lys Thr Gly Cys Arg Gly Glu Ala Glu Gly Gly Gly Ala  
 85 90 95  
 Glu Ala Ala Gly Leu Cys Leu Trp  
 100

<210> 4124

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4124

Met Pro Asp Cys Arg Arg Tyr Gln Gln Pro Val Glu Lys Leu His Gln  
 1 5 10 15  
 Cys Trp Gly Ser Tyr Phe Asn Tyr Ser Arg Lys Ile His Phe Leu Leu  
 20 25 30  
 Ser Val Trp Phe His Leu Gly Leu Thr Ser Phe Leu Ala Gly Pro Arg  
 35 40 45  
 Phe Val Lys Ser Ile Leu Ile Ser Arg Ile Ile Leu Ala Asn Ser Leu  
 50 55 60  
 Pro Arg Phe Ser Phe Pro Ser Phe Gly Gln Leu Ala Trp Phe Val Leu  
 65 70 75 80  
 Leu Ile Ser Glu Met Arg Cys Asp Asn Lys Arg Gln Arg Asn Lys Ser  
 85 90 95  
 Met Phe Leu Ala Phe Gly Phe Arg Ser Cys Pro Tyr Gly Lys Glu Lys

100 105 110  
Thr Asn Lys Cys Gly Ile Asp Lys Ile Phe Gly Arg Lys Asp Asn Lys  
115 120 125  
Ser Arg Lys Glu Phe Leu Arg Gly Arg Lys  
130 135

<210> 4125

<211> 234

<212> PRT

<213> Homo sapiens

<400> 4125

Met Gln Gly Ser Arg Arg Asp Cys Arg Met Tyr Ala Thr Ala Thr Gly  
1 5 10 15  
Pro Gly Phe Ser Gly Leu Pro Trp Ala Val His His Pro Leu His Ser  
20 25 30  
Pro Ser His Cys Tyr Pro Thr Ser Ala Val Arg Ser Pro Arg Ala His  
35 40 45  
Ser Ala Gln Pro Pro Ser Ser Val Pro Ser Gly Pro Phe Thr Pro Cys  
50 55 60  
Asp Asn Ser Arg Cys Cys Leu Gly Ser Trp Gly Thr Pro Asp Pro Ser  
65 70 75 80  
Ser His Gly Ile Ser Ser Arg His Ala Gly Gln Ala Gly Pro Met Ala  
85 90 95  
Leu His Leu Ser Pro Ala Ala Trp Gly Cys Pro Val Gly Ala Asp Thr  
100 105 110  
Thr Ser Leu Pro Phe Gly Pro Leu Pro Arg Thr His Cys Met Pro Gly  
115 120 125

Trp Gly Asp Gly Gly Arg Glu Lys Ser Gly Arg Phe Pro Ser Trp Arg  
 130 135 140  
 Gly Ser Ala Arg Ala Gly Arg Cys Pro Gly Met Thr Ile Pro Asp Ser  
 145 150 155 160  
 Gln Asn His Leu Pro Ala Val Gly Trp Gly Ser Pro Gln Arg Ala His  
 165 170 175  
 Pro Tyr Ser Gln Ser Arg Asp Glu Gly Ser Cys Gly Pro Arg Arg Trp  
 180 185 190  
 Ala Lys Arg Arg Thr Gly Ser Trp Met Gln Ser Gly Val Ser Gly Ala  
 195 200 205  
 Pro Gly Gln Arg His Arg Ala Tyr Trp Gly Gln Gly Trp Gly Glu Met  
 210 215 220  
 Gly Leu Ser Pro Arg Asp Leu Gly Arg Ser  
 225 230

<210> 4126

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4126

Met Glu Pro Arg Ser Gly Gly Leu Arg Ser His Lys Ala Tyr Ala Cys  
 1 5 10 15  
 Ile Phe Leu Arg Glu Pro Thr Glu Glu Arg Glu Met Ala Lys Thr Arg  
 20 25 30  
 Arg Asp Arg Trp Met Thr Thr Ser Ala Gly Gln Lys Thr Thr Leu Ile  
 35 40 45  
 Ala Phe Met Arg Met Thr Ala Ser Pro Ser Gln Lys Ala Thr Leu Ile

50                      55                      60  
 Ala Ser Met Arg Met Thr Ala Ser Pro Gly Gln Lys Thr Thr Leu Ile  
 65                      70                      75                      80  
 Ala Ser Met Ser Ser Pro Trp Gly Ile His Gly Glu Asp Ile Phe Glu  
                          85                      90                      95  
 Gly Glu Ile Pro Asn Ala Ser  
                          100

<210> 4127

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4127

Met Arg Pro Ser Met Ile Trp Val Leu Ser Ala Ser Pro Ala Ser Pro  
 1                      5                      10                      15  
 Asp Val Pro Gly Gly Ser Ala Leu Val Asn Pro Cys Ser Leu Leu Ala  
                          20                      25                      30  
 Thr Arg Cys Ser Leu Arg Pro Leu Pro Thr Thr Gln Asn Ala Ile Tyr  
                          35                      40                      45  
 Leu Leu Pro Ser Thr Leu Pro Pro Cys Pro Arg Pro Ile Pro Ile Pro  
                          50                      55                      60  
 Gln Leu Thr Ser Cys Pro Phe Ile Lys Ile Ala Leu Ala Met Pro Ser  
 65                      70                      75                      80  
 Gln Glu Ile Ser Asn Pro Tyr Gly Leu Leu Gly Ala Pro Leu Leu Glu  
                          85                      90                      95  
 Ala Ala Lys Asp Thr Asp Leu Phe Ser Arg Cys Ala Trp Ile  
                          100                      105                      110

&lt;210&gt; 4128

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4128

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Met Leu Pro Asn Tyr Met Lys Gln Thr Ile Tyr Gly His Asn Thr Thr
  1             5             10             15
Ile Phe Asn Glu His Leu Tyr Ile Leu Tyr Ala Thr Val Leu Ser Leu
          20             25             30
Cys Leu Pro Cys Ala Lys Ser Thr Val Phe Asn Asp Leu Lys Leu Thr
          35             40             45
Phe Ala Asn Asn Ser Lys Tyr Arg Trp Ser Ser Ser Ser Lys Thr Thr
          50             55             60
Lys Gly Ser Phe Leu Ser Met Val Ile Phe Ser Pro Phe Lys Leu Ile
          65             70             75             80
Leu Tyr Lys Gln Asp Phe Lys Ser Lys Ser His Phe Phe Arg Cys Arg
          85             90             95
His Pro Cys Gly Trp Glu Arg Ile
          100

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&lt;210&gt; 4129

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4129

Met Pro Ser Arg Cys Pro Gly Pro His Pro Ser Ala Arg His Pro Pro  
1 5 10 15  
Ser Gly Leu Pro Gly Leu Leu Gly Ser Pro Val Phe Pro Asp Arg Gln  
20 25 30  
Gly Leu Asp Val Pro Ser Gln Pro Ala Pro Gly Pro Thr Cys Arg Ser  
35 40 45  
Tyr Pro Asn Ala Leu Arg Ser Pro Ala Leu Pro Leu Cys Phe His Pro  
50 55 60  
Pro Ser Phe Leu Met Val Phe Phe Leu Pro His Cys Leu Ser Leu Cys  
65 70 75 80  
Leu Ser Val Leu Ser Val Pro Ser Pro Pro Val Ser Pro Ser Ala Leu  
85 90 95  
Tyr Gly Pro Leu Val Ser Leu Ser Thr Ser Leu Tyr His His Val Ile  
100 105 110  
Ser Val Ser Leu Ser Val Ser Ile Ser Pro Cys Leu Cys Leu Leu Cys  
115 120 125  
Leu Ile Phe Leu  
130

&lt;210&gt; 4130

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4130

Met Asn Lys Ile Arg Leu Ser Leu Lys Arg Asn Tyr Lys Lys Glu Leu  
1 5 10 15



Arg Pro Gly Val Met Ala His Ala Gly Asn Pro Ser Thr Leu Gly Gly  
                   20                                  25                                  30  
 Gln Gly Ser Trp Ile Met Arg Ser Gly Val Arg Asp Gln Pro Gly Gln  
                   35                                  40                                  45  
 His Gly Glu Thr Ser Ser Leu Leu Lys Ile Gln Glu Leu Ala Gly Cys  
                   50                                  55                                  60  
 Gly Gly Met Pro Val Phe Pro Ala Thr Gln Glu Gly Lys Ala Gly Glu  
                   65                                  70                                  75                                  80  
 Ser Leu Glu Pro Arg Arg Trp Arg Leu Gln Cys Thr Gln Ile Ala Pro  
                                   85                                  90                                  95  
 Leu His Ser Ser Leu Gly Asp Arg Ala Arg Leu Leu Glu Lys Lys Gly  
                   100                                  105                                  110  
 Ala Glu Met Lys Phe  
                   115

<210> 4131

<211> 143

<212> PRT

<213> Homo sapiens

<400> 4131

Met Met Pro Gly Met Ala Thr Leu Met Ala Asp Ser Met Cys Asp Asp  
           1                                  5                                  10                                  15  
 Ser Tyr Ser Ser Cys Gly Arg Gln Ser Ile Ser Ser Ser Arg Ser Leu  
                   20                                  25                                  30  
 Pro Ser Ser Ser Cys Ser Leu Ser His Ala Thr Val Leu Leu Ile Ala  
                   35                                  40                                  45  
 Ile Ser Asp Ala Lys Gly Thr Gly Leu Ser Val Ser Ile Met Gly Val

50                                      55                                      60  
 Glu Leu Arg Glu Arg Ala Gly Cys Leu Pro Asp Ala Pro Arg Gly Arg  
 65                                      70                                      75                                      80  
 His Arg Pro Ser Ala Pro Arg Ala Lys Leu Pro Leu Ser Glu Arg Gly  
                                     85                                      90                                      95  
 Leu Ile Pro Pro Arg Leu Thr Gln Ala Glu Ala Ser Gly Trp Gly Arg  
                                     100                                      105                                      110  
 Arg Asp Arg Ser Lys Ala Gly Gly Ser Leu Cys Thr Gln Leu Gln Pro  
                                     115                                      120                                      125  
 Leu Ala Leu Ser Val Asn Glu Ser Leu Ser Met Lys Leu Pro Arg  
                                     130                                      135                                      140

&lt;210&gt; 4132

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4132

Met Glu Ala Ser Pro Tyr Leu Glu Gly Pro Leu Ser Gly Arg Pro Cys  
 1                                      5                                      10                                      15  
 Trp Leu His Arg Gly Gly Ser Glu Asp Asn Pro Ser Leu Gly Gly Ala  
                                     20                                      25                                      30  
 His His Cys Cys Leu Gly His Ser Gln Glu Cys Tyr Ser Arg Pro Thr  
                                     35                                      40                                      45  
 Ala Gly His Leu Ala Gly Thr Gly Ser Pro Arg Ile Trp Pro Arg Trp  
                                     50                                      55                                      60  
 Gly Arg Val Pro Pro Arg Ser Phe Ser Leu Ser Ser Ala Ser Val Pro  
                                     65                                      70                                      75                                      80

Ser Pro His Leu Leu Cys Thr Arg Ile Thr Ala Ser Arg Glu Arg Met  
                     85                    90                    95  
 Ala Leu Arg Leu Gly Phe Cys Phe Gln Pro Ser Ser Glu Arg Gly Ser  
                     100                    105                    110  
 Thr Tyr Arg Lys Gln Tyr Ile Ser His Gln Ser Leu Arg Asp Pro Gln  
                     115                    120                    125  
 Ala Gln Leu Thr Pro Thr Pro Gly Ala Pro Ala Phe  
                     130                    135                    140

<210> 4133

<211> 208

<212> PRT

<213> Homo sapiens

<400> 4133

Met Gly Ser Cys Ser Gly Arg Cys Ala Leu Val Val Leu Cys Ala Phe  
     1                    5                    10                    15  
 Gln Leu Val Ala Ala Leu Glu Arg Gln Val Phe Asp Phe Leu Gly Tyr  
                     20                    25                    30  
 Gln Trp Ala Pro Ile Leu Ala Asn Phe Val His Ile Ile Ile Val Ile  
                     35                    40                    45  
 Leu Gly Leu Phe Gly Thr Ile Gln Tyr Arg Leu Arg Tyr Val Met Val  
                     50                    55                    60  
 Tyr Thr Leu Trp Ala Ala Val Trp Val Thr Trp Asn Val Phe Ile Ile  
     65                    70                    75                    80  
 Cys Phe Tyr Leu Glu Val Gly Gly Leu Leu Gln Asp Ser Glu Leu Leu  
                     85                    90                    95  
 Thr Phe Ser Leu Ser Arg His Arg Ser Trp Trp Arg Glu Arg Trp Pro

100	105	110	
Gly Cys Leu His Glu Glu Val Pro Ala Val Gly Leu Gly Ala Pro His			
115	120	125	
Gly Gln Ala Leu Val Ser Gly Ala Gly Cys Ala Leu Glu Pro Ser Tyr			
130	135	140	
Val Glu Ala Leu His Ser Gly Leu Gln Ile Leu Ile Ala Leu Leu Gly			
145	150	155	160
Phe Val Cys Gly Cys Gln Val Val Ser Val Phe Thr Glu Glu Glu Asp			
165	170	175	
Ser Phe Asp Phe Ile Gly Gly Phe Asp Pro Phe Pro Leu Tyr His Val			
180	185	190	
Asn Glu Lys Pro Ser Ser Leu Leu Ser Lys Gln Val Tyr Leu Pro Ala			
195	200	205	

&lt;210&gt; 4134

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4134

Met Cys Val Arg Arg Ser Leu Val Gly Leu Thr Phe Cys Thr Cys Tyr			
1	5	10	15
Leu Ala Ser Tyr Leu Thr Asn Lys Tyr Val Leu Ser Val Leu Lys Phe			
20	25	30	
Thr Tyr Pro Thr Leu Phe Gln Gly Trp Gln Thr Leu Ile Gly Gly Leu			
35	40	45	
Leu Leu His Val Ser Trp Lys Leu Gly Trp Val Glu Ile Asn Ser Ser			
50	55	60	

Ser Arg Ser His Val Leu Val Trp Leu Pro Ala Ser Val Leu Phe Val  
 65 70 75 80  
 Gly Ile Ile Tyr Ala Gly Ser Arg Ala Leu Ser Arg Leu Ala Ile Pro  
 85 90 95  
 Val Phe Leu Thr Leu His Asn Val Ala Glu Val Ile Ile Cys Gly Tyr  
 100 105 110  
 Gln Lys Cys Phe Gln Lys Glu Lys Thr Ser Pro Ala Lys Ile Cys Ser  
 115 120 125  
 Ala Leu Phe Leu Leu Ala Ala Ala Gly Cys Leu Pro Phe Asn Asp Ser  
 130 135 140  
 Gln Gly Leu Ile Lys Phe Tyr Arg Ser Pro Arg Asn Pro Val His  
 145 150 155

&lt;210&gt; 4135

&lt;211&gt; 942

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4135

Met Glu Arg Leu Leu Arg Arg Ile Asn Arg Thr Val Ile Gly Met Asn  
 1 5 10 15  
 Arg Gln Ser Pro His Ile Gly Ser Phe Val Ala Cys Met Ile Ala Leu  
 20 25 30  
 Leu Gln Gln Met Asp Asp Ser His Tyr Ser His Tyr Ile Ser Thr Phe  
 35 40 45  
 Lys Thr Arg Gln Asp Ile Ile Asp Phe Leu Leu Glu Thr Phe Ile Met  
 50 55 60  
 Phe Lys Asp Leu Ile Gly Lys Asn Val Tyr Ala Lys Asp Trp Met Val

65	70	75	80
Met Asn Met Thr Gln Asn Arg Val Phe Leu Arg Ala Ile Asn Gln Phe			
	85	90	95
Ala Glu Val Leu Thr Arg Phe Phe Met Asp Gln Ala Ser Phe Glu Leu			
	100	105	110
Gln Leu Trp Asn Asn Tyr Phe His Leu Ala Val Ala Phe Leu Thr His			
	115	120	125
Glu Ser Leu Gln Leu Glu Thr Phe Ser Gln Ala Lys Arg Asn Lys Ile			
	130	135	140
Val Lys Lys Tyr Gly Asp Met Arg Lys Glu Ile Gly Phe Arg Ile Arg			
145	150	155	160
Asp Met Trp Tyr Asn Leu Gly Pro His Lys Ile Lys Phe Ile Pro Ser			
	165	170	175
Met Val Gly Pro Ile Leu Glu Val Thr Leu Thr Pro Glu Val Glu Leu			
	180	185	190
Arg Lys Ala Thr Ile Pro Ile Phe Phe Asp Met Met Gln Cys Glu Phe			
	195	200	205
Asn Phe Ser Gly Asn Gly Asn Phe His Met Phe Glu Asn Glu Leu Ile			
	210	215	220
Thr Lys Leu Asp Gln Glu Val Glu Glu Gly Arg Gly Asp Glu Gln Tyr			
225	230	235	240
Lys Val Leu Leu Glu Lys Leu Leu Leu Glu His Cys Arg Lys His Lys			
	245	250	255
Tyr Leu Ser Ser Ser Gly Glu Val Phe Ala Leu Leu Val Ser Ser Leu			
	260	265	270
Leu Glu Asn Leu Leu Asp Tyr Arg Thr Ile Ile Met Gln Asp Glu Ser			
	275	280	285
Lys Glu Asn Arg Met Ser Cys Thr Val Asn Val Leu Asn Phe Tyr Lys			
	290	295	300

Glu Lys Lys Arg Glu Asp Ile Tyr Ile Arg Tyr Leu Tyr Lys Leu Arg  
305 310 315 320  
Asp Leu His Arg Asp Cys Glu Asn Tyr Thr Glu Ala Ala Tyr Thr Leu  
325 330 335  
Leu Leu His Ala Glu Leu Leu Gln Trp Ser Asp Lys Pro Cys Val Pro  
340 345 350  
His Leu Leu Gln Arg Asp Ser Tyr Tyr Val Tyr Thr Gln Gln Glu Leu  
355 360 365  
Lys Glu Lys Leu Tyr Gln Glu Ile Ile Ser Tyr Phe Asp Lys Gly Lys  
370 375 380  
Met Trp Glu Lys Ala Ile Lys Leu Ser Lys Glu Leu Ala Glu Thr Tyr  
385 390 395 400  
Glu Ser Lys Val Phe Asp Tyr Glu Gly Leu Gly Asn Leu Leu Lys Lys  
405 410 415  
Arg Ala Ser Phe Tyr Glu Asn Ile Ile Lys Ala Met Arg Pro Gln Pro  
420 425 430  
Glu Tyr Phe Ala Val Gly Tyr Tyr Gly Gln Gly Phe Pro Ser Phe Leu  
435 440 445  
Arg Asn Lys Ile Phe Ile Tyr Arg Gly Lys Glu Tyr Glu Arg Arg Glu  
450 455 460  
Asp Phe Ser Leu Arg Leu Leu Thr Gln Phe Pro Asn Ala Glu Lys Met  
465 470 475 480  
Thr Ser Thr Thr Pro Pro Gly Glu Asp Ile Lys Ser Ser Pro Lys Gln  
485 490 495  
Tyr Met Gln Cys Phe Thr Val Lys Pro Val Met Ser Leu Pro Pro Ser  
500 505 510  
Tyr Lys Asp Lys Pro Val Pro Glu Gln Ile Leu Asn Tyr Tyr Arg Ala  
515 520 525  
Asn Glu Val Gln Gln Phe Arg Tyr Ser Arg Pro Phe Arg Lys Gly Glu

530	535	540
Lys Asp Pro Asp Asn Glu Phe Ala Thr Met Trp Ile Glu Arg Thr Thr		
545	550	555
Tyr Thr Thr Ala Tyr Thr Phe Pro Gly Ile Leu Lys Trp Phe Glu Val		
565	570	575
Lys Gln Ile Ser Thr Glu Glu Ile Ser Pro Leu Glu Asn Ala Ile Glu		
580	585	590
Thr Met Glu Leu Thr Asn Glu Arg Ile Ser Asn Cys Val Gln Gln His		
595	600	605
Ala Trp Asp Arg Ser Leu Ser Val His Pro Leu Ser Met Leu Leu Ser		
610	615	620
Gly Ile Val Asp Pro Ala Val Met Gly Gly Phe Ser Asn Tyr Glu Lys		
625	630	635
Ala Phe Phe Thr Glu Lys Tyr Leu Gln Glu His Pro Glu Asp Gln Glu		
645	650	655
Lys Val Glu Leu Leu Lys Arg Leu Ile Ala Leu Gln Met Pro Leu Leu		
660	665	670
Thr Glu Gly Ile Arg Ile His Gly Glu Lys Leu Thr Glu Gln Leu Lys		
675	680	685
Pro Leu His Glu Arg Leu Ser Ser Cys Phe Arg Glu Leu Lys Glu Lys		
690	695	700
Val Glu Lys His Tyr Gly Val Ile Thr Leu Pro Pro Asn Leu Thr Glu		
705	710	715
Arg Lys Gln Ser Arg Thr Gly Ser Ile Val Leu Pro Tyr Ile Met Ser		
725	730	735
Ser Thr Leu Arg Arg Leu Ser Ile Thr Ser Val Thr Ser Ser Val Val		
740	745	750
Ser Thr Ser Ser Asn Ser Ser Asp Asn Ala Pro Ser Arg Pro Gly Ser		
755	760	765



Asp Gly Ser Ile Leu Glu Pro Leu Leu Glu Arg Arg Ala Ser Ser Gly  
770 775 780

Ala Arg Val Glu Asp Leu Ser Leu Arg Glu Glu Asn Ser Glu Asn Arg  
785 790 795 800

Ile Ser Lys Phe Lys Arg Lys Asp Trp Ser Leu Ser Lys Ser Gln Val  
805 810 815

Ile Ala Glu Lys Ala Pro Glu Pro Asp Leu Met Ser Pro Thr Arg Lys  
820 825 830

Ala Gln Arg Pro Lys Ser Leu Gln Leu Met Asp Asn Arg Leu Ser Pro  
835 840 845

Phe His Gly Ser Ser Pro Pro Gln Ser Thr Pro Leu Ser Pro Pro Pro  
850 855 860

Leu Thr Pro Lys Ala Thr Arg Thr Leu Ser Ser Pro Ser Leu Gln Thr  
865 870 875 880

Asp Gly Ile Ala Ala Thr Pro Val Pro Pro Pro Pro Pro Lys Ser  
885 890 895

Lys Pro Tyr Glu Gly Ser Gln Arg Ser Ser Thr Glu Leu Ala Pro Pro  
900 905 910

Leu Pro Val Arg Arg Glu Ala Lys Ala Pro Pro Pro Pro Pro Lys  
915 920 925

Ala Arg Lys Ser Gly Ile Pro Thr Ser Glu Pro Gly Ser Gln  
930 935 940

&lt;210&gt; 4136

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4136

Met Ala His Leu Arg Asp His Pro Phe Ser Asn Thr Arg Leu Pro Lys  
 1 5 10 15  
 Pro Trp His Arg Asp Gly Cys Leu Gly Trp Pro Arg Arg Asp Ser Arg  
 20 25 30  
 Ser Val Leu Cys Gly Asp Leu Leu Ser Ala Gln Lys Leu Val Leu Thr  
 35 40 45  
 Leu Pro Leu Thr Gly Val Trp Cys Phe Trp Ser Gly Leu Phe Leu Gln  
 50 55 60  
 Gly Cys Pro Ser Val Ser Val Pro Met Gly Val Cys Pro Ala Cys Ser  
 65 70 75 80  
 Tyr Arg Glu Gln Asp Cys Trp Ala Pro Gly Met Arg Ala Arg Gly Trp  
 85 90 95  
 Pro Asn Thr Glu Trp Leu Pro Ala Val Ile Leu Ser Val Leu Phe Pro  
 100 105 110  
 Pro Gln Ser Ser Trp Gln Glu Ser Val Leu Leu Ala Ala Phe Phe Val  
 115 120 125  
 Arg Ile Tyr Trp Asp Leu Phe Lys Val Pro Trp Gly Pro Arg Arg Leu  
 130 135 140

&lt;210&gt; 4137

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4137

Met Leu Phe Phe Phe Phe Phe Phe Phe Phe Glu Met Glu Ser Cys Phe  
 1 5 10 15

Val Ala Gln Ala Glu Val Gln Trp His Asp Leu Gly Ser Leu Leu Pro  
                     20                    25                    30  
 Leu Pro Pro Gly Phe Lys Gln Phe Phe Cys Leu Ser Leu Pro Ser Ser  
                     35                    40                    45  
 Trp Asp Cys Arg Cys Ala Pro Thr Cys Thr Thr Val Gln Ile Pro Gly  
                     50                    55                    60  
 Cys Leu Phe Ser Gly Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser  
                     65                    70                    75                    80  
 Arg Thr Pro Asp Leu Arg Trp Ser Thr Cys Phe Ser Leu Pro Gly Cys  
                                     85                    90                    95  
 Trp Asn Cys Arg Cys Glu Pro Pro Cys Gln Thr Asp Ala Phe Tyr Val  
                     100                    105                    110

<210> 4138

<211> 531

<212> PRT

<213> Homo sapiens

<400> 4138

Met Leu Lys Leu Ile Pro Pro His Ala Arg Glu Ala Gly Thr Arg Gly  
           1                    5                    10                    15  
 Gly Thr Asp Thr Ala Gly Glu Pro Thr Pro Glu Val Arg Pro Gly Asp  
                     20                    25                    30  
 Val His Ser His Ile Pro Lys Ala His Gly Met Arg Ser Ala Trp Val  
                     35                    40                    45  
 Thr Leu Gly Leu Cys Pro Pro Arg Gln Glu Pro Ala Leu Cys Thr Leu  
                     50                    55                    60  
 Cys Ala Cys Pro Ser Gly Arg Pro Ser Met Arg Gly Pro Ala Val Leu

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Arg Asn His Leu Thr Asp Arg Leu Asn Leu Ile Ile Thr Ser Asp His  
305 310 315 320  
Gly Met Thr Thr Val Asp Lys Arg Ala Gly Asp Leu Val Glu Phe His  
325 330 335  
Lys Phe Pro Asn Phe Thr Phe Arg Asp Ile Glu Phe Glu Leu Leu Asp  
340 345 350  
Tyr Gly Pro Asn Gly Met Leu Leu Pro Lys Glu Gly Arg Leu Glu Lys  
355 360 365  
Val Tyr Asp Ala Leu Lys Asp Ala His Pro Lys Leu His Val Tyr Lys  
370 375 380  
Lys Glu Ala Phe Pro Glu Ala Phe His Tyr Ala Asn Asn Pro Arg Val  
385 390 395 400  
Thr Pro Leu Leu Met Tyr Ser Asp Leu Gly Tyr Val Ile His Gly Arg  
405 410 415  
Ile Asn Val Gln Phe Asn Asn Gly Glu His Gly Phe Asp Asn Lys Asp  
420 425 430  
Met Asp Met Lys Thr Ile Phe Arg Ala Val Gly Pro Ser Phe Arg Ala  
435 440 445  
Gly Leu Glu Val Glu Pro Phe Glu Ser Val His Val Asn Glu Leu Met  
450 455 460  
Cys Arg Leu Leu Gly Ile Val Pro Glu Ala Asn Asp Gly His Leu Ala  
465 470 475 480  
Thr Leu Leu Pro Met Leu His Thr Glu Ser Ala Leu Pro Pro Asp Gly  
485 490 495  
Arg Pro Thr Leu Leu Pro Lys Gly Arg Ser Ala Leu Pro Pro Ser Ser  
500 505 510  
Arg Pro Leu Leu Val Met Gly Leu Leu Gly Thr Val Ile Leu Leu Ser  
515 520 525  
Glu Val Ala

530

&lt;210&gt; 4139

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4139

Met Thr Thr Leu Ser Asn Arg Asn Lys Tyr Leu Ser Cys Leu Val Trp

1 5 10 15

Leu Thr Met Asp Arg Thr Phe Ser Ser Pro Ser Ile Phe Gly Leu Pro

20 25 30

Asn Ser Ser Ser Phe Thr Cys Trp Glu Gly Glu Gly Pro Ser Ala Gly

35 40 45

Ala Gly Ala Ala Pro Val Leu Leu Thr Ala Arg Ala Gly Gln Thr Val

50 55 60

Val His Pro Arg Glu Leu Pro Thr Gly Ser Arg Gly Gly Thr Lys Gly

65 70 75 80

Asn Ser Pro Cys Gly Ser Gln Leu Val Leu Arg Met Asp Glu Gly Gly

85 90 95

Cys Arg Arg Pro Gly Arg Asp Trp Ala Trp Gln Leu Leu Ser Leu Ser

100 105 110

Trp Pro Ala Leu Pro Arg Gly Ser Leu Gln Leu Trp Gly Gln Arg Ala

115 120 125

Ile Asp Gly Ala Gly Cys Val His Arg Gly Arg Arg Cys Val Glu Pro

130 135 140

Gln Ala Gly Pro Gly Arg Lys Ser Gln Lys Pro Lys Pro His Val Gln

145 150 155 160

Glu Arg Thr Asn Ser Ala Tyr Leu Leu Gln Gly Gly Trp Gly Arg Gly  
                     165                    170                    175  
 Pro Ala Lys Gly Glu Ala Ser Thr Gln Thr Pro Val Trp Phe Ala Glu  
                     180                    185                    190  
 Val His Phe Arg Cys Leu Ser Gly Phe Val Ser Val Thr Leu Leu Ile  
                     195                    200                    205  
 Gln Arg Glu Leu Leu Leu Thr Cys Ser Leu Arg Gly Phe Gln Ser Val  
                     210                    215                    220  
 His Thr Asp Arg Lys Arg Trp Arg Lys Met Leu Gln Asp Thr Asn Arg  
 225                    230                    235                    240  
 Ala Leu Pro Gly Arg Cys Ser Arg His Arg Leu Ser Val Ser Phe Gln  
                     245                    250                    255  
 Gly Leu Ser Pro Arg Gly Cys Lys Asp Ser Phe Gly Val Thr  
                     260                    265                    270

&lt;210&gt; 4140

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4140

Met Gly Glu Pro Gly Gln Ser Pro Ser Pro Arg Ser Ser His Gly Ser  
           1                    5                    10                    15  
 Pro Pro Thr Leu Ser Thr Leu Thr Leu Leu Leu Leu Cys Gly His  
                     20                    25                    30  
 Ala His Ser Gln Cys Lys Ile Leu Arg Cys Asn Ala Glu Tyr Val Ser  
                     35                    40                    45  
 Ser Thr Leu Ser Leu Arg Gly Gly Gly Ser Ser Gly Ala Leu Arg Gly

出証特 2 0 0 4 - 3 0 5 9 6 6 0



Gln Thr Ala Gly Gln Leu Ser Phe Ser Ile Lys Val Ala Glu Asp Val  
 290 295 300  
 Ala Met Ala Phe Ser Ala Glu Gln Asp Leu Gln Leu Cys Val Gly Gly  
 305 310 315 320  
 Cys Pro Pro Ser Gln Arg Leu Ser Arg Ser Glu Arg Asn Arg Arg Gly  
 325 330 335  
 Ala Ile Thr Ile Asp Thr Ala Arg Arg Leu Cys Lys Glu Gly Leu Pro  
 340 345 350  
 Val Glu Asp Ala Tyr Phe His Ser Cys Val Phe Asp Val Leu Ile Ser  
 355 360 365  
 Gly Asp Pro Asn Phe Thr Val Ala Ala Gln Ala Ala Leu Glu Asp Ala  
 370 375 380  
 Arg Ala Phe Leu Pro Asp Leu Glu Lys Leu His Leu Phe Pro Ser Asp  
 385 390 395 400  
 Ala Gly Val Pro Leu Ser Ser Ala Thr Leu Leu Ala Pro Leu Leu Ser  
 405 410 415  
 Gly Leu Phe Val Leu Trp Leu Cys Ile Gln  
 420 425

<210> 4141

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4141

Met Tyr Cys Gln Asp Ser Asn Ile Cys Ala Val Phe Ala Val Gln Gly  
 1 5 10 15  
 Gly Lys Val Gly Arg Lys His Gly Ile Lys Arg Gly Arg Arg Pro Ser

	20		25		30										
Ile	Arg	Ser	Pro	Ala	Gln	Arg	Ala	Arg	Gly	Pro	Trp	Ile	His	Glu	Ser
	35		40		45										
Lys	His	Pro	Ala	Phe	Ala	Lys	Gln	Gln	Ile	Asn	Leu	Glu	Met	Pro	Asn
	50		55		60										
Ser	Arg	Ala	Thr	Thr	Glu	Leu	Ala	Trp	Val	Cys	Ser	Ser	Thr	Ser	Arg
	65		70		75										80
Lys	Lys	Lys	Trp	Ala	Gly	Ser	Leu	Thr	Leu	Ser	Thr	Ala	Pro	Leu	Ser
			85		90									95	
Pro	Pro	Pro	Ser	Leu	Val	His	Cys	Glu	Asp	Cys	Ser	Cys	Leu	Pro	Gly
			100		105									110	
Cys	His	Ser	Gly	Asp	Leu	Tyr	Asn	Leu	Ala	Pro	Ala	Glu	Arg	Thr	Cys
			115		120									125	

&lt;210&gt; 4142

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4142

Met	Asn	Gly	Thr	Ile	Tyr	Ser	Pro	Gly	Tyr	Pro	Asp	Glu	Tyr	Pro	Asn
1				5					10					15	
Phe	Gln	Asp	Cys	Phe	Trp	Leu	Val	Arg	Val	Pro	Pro	Gly	Asn	Gly	Ile
				20				25						30	
Tyr	Ile	Asn	Phe	Thr	Val	Leu	Gln	Thr	Glu	Pro	Ile	Tyr	Asp	Phe	Ile
			35					40						45	
Thr	Val	Trp	Asp	Gly	Pro	Asp	Gln	Asn	Ser	Pro	Gln	Ile	Gly	Gln	Phe
			50					55						60	

Ser Gly Asn Thr Ala Leu Glu Ser Val Tyr Ser Thr Ser Asn Gln Ile  
 65 70 75 80  
 Leu Ile Lys Phe His Ser Asp Phe Thr Thr Ser Gly Phe Phe Val Leu  
 85 90 95  
 Ser Tyr His Ala Tyr Gln Leu Arg Val Cys Gln Pro Pro Pro Pro Val  
 100 105 110  
 Pro Asn Ala Glu Ile Leu Thr Glu Asp Asp Glu Phe Glu Ile Gly Asp  
 115 120 125  
 Ile Ile Arg Tyr Gln Cys Leu Pro Gly Phe Thr Leu Val Gly Asn Ala  
 130 135 140  
 Ile Leu Thr Cys Arg Leu Gly Glu Arg Leu Gln Met Asp Gly Ala Pro  
 145 150 155 160  
 Pro Val Cys Gln Val Leu Cys Pro Ala Asn Glu Leu Arg Leu Asp Ser  
 165 170 175  
 Thr Gly Val Ile Leu Ser Pro Gly Tyr Pro Asp Ser Tyr Pro Asn Leu  
 180 185 190  
 Gln Met Cys Ala Trp Ser Ile Ser Val Glu Lys Gly Tyr Asn Ile Thr  
 195 200 205  
 Met Phe Val Glu Phe Phe Gln Thr Glu Lys Glu Phe Asp Val Leu Gln  
 210 215 220  
 Val Tyr Asp Gly Pro Asn Ile Gln Ser Pro Val Leu Ile Ser Leu Ser  
 225 230 235 240  
 Gly Asp Tyr Ser Ser Ala Phe Asn Ile Thr Ser Asn Gly His Glu Val  
 245 250 255  
 Phe Leu Gln Trp Ser Ala Asp His Gly Asn Asn Lys Lys Gly Phe Arg  
 260 265 270  
 Ile Arg Tyr Ile Ala Phe Tyr Cys Ser Thr Pro Glu Ser Pro Pro His  
 275 280 285  
 Gly Tyr Ile Ile Ser Gln Thr Gly Gly Gln Leu Asn Ser Val Val Arg

290                      295                      300  
 Trp Ala Cys Asp Arg Gly Phe Arg Leu Val Gly Lys Ser Ser Ala Val  
 305                      310                      315                      320  
 Cys Arg Lys Ser Ser Tyr Gly Tyr His Ala Trp Asp Ala Pro Val Pro  
                          325                      330                      335  
 Ala Cys Gln Gly Glu Val Tyr Tyr Ala Lys Met Asn Lys Asn Met Asn  
                          340                      345                      350  
 Val Arg Leu Ala Pro Phe Asn Val Phe Ile Trp Ile Thr Asn Phe Ser  
                          355                      360                      365  
 Glu Asn Gly Asn Ile Arg Lys His Ile Val Asn Ser Phe His Lys Asn  
                          370                      375                      380  
 Lys Ala  
 385

<210> 4143

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4143

Met Leu Val Glu Val Ala Leu Cys Thr Trp Tyr Leu Val Ala Phe Pro  
     1                      5                      10                      15  
 Pro Glu Val Val Thr Asp Trp His Met Leu Pro Thr Glu Ala Leu Val  
                          20                      25                      30  
 His Cys Arg Thr Arg Ser Trp Val Ser Phe Gly Leu Ala His Ala Thr  
                          35                      40                      45  
 Asn Ala Thr Leu Ala Phe Leu Cys Phe Leu Gly Thr Phe Leu Val Arg  
                          50                      55                      60

Ser Gln Pro Gly Arg Tyr Asn Arg Ala Arg Gly Leu Thr Phe Ala Met  
 65 70 75 80  
 Leu Ala Tyr Phe Ile Thr Trp Val Ser Phe Val Pro Leu Leu Ala Asn  
 85 90 95  
 Val Gln Val Val Leu Arg Pro Ala Val Gln Met Gly Ala Leu Leu Leu  
 100 105 110  
 Cys Val Leu Gly Ile Leu Ala Ala Phe His Leu Pro Arg Cys Tyr Leu  
 115 120 125  
 Leu Met Arg Gln Pro Gly Leu Asn Thr Pro Glu Phe Phe Leu Gly Gly  
 130 135 140  
 Gly Pro Gly Asp Ala Gln Gly Gln Asn Asp Gly Asn Thr Gly Asn Gln  
 145 150 155 160  
 Gly Lys His Glu

<210> 4144

<211> 136

<212> PRT

<213> Homo sapiens

<400> 4144

Met Lys Glu Arg Asp Trp Lys Ser Ser Ser His Asn Thr Val Asn Glu  
 1 5 10 15  
 Glu Leu Pro His Asn Cys Ile Glu Gln Pro Gln Gln Asn Asp Glu Ser  
 20 25 30  
 Ser Ser Lys Val Arg Thr Ser Ser Asp Met Asn Arg Arg Lys Ser Ile  
 35 40 45  
 Lys Asp His Leu Lys Asn Ala Met Thr Gly Asn Ala Lys Ala Gln Thr

50                      55                      60  
 Pro Ile Phe Ser Arg Ser Lys Gln Leu Lys Asp Thr Leu Leu Ser Glu  
 65                      70                      75                      80  
 Glu Ile Asn Val Ala Lys Lys Thr Ile Glu Ser Ser Ser Asn Asp Leu  
                     85                      90                      95  
 Gly Pro Phe Tyr Ser Leu Pro Ser Lys Val Arg Asp Leu Tyr Ala Gln  
                     100                      105                      110  
 Phe Lys Gly Ile Glu Lys Leu Tyr Gly Asn Ala Phe Cys Trp Asn Lys  
                     115                      120                      125  
 Lys Ile Phe Phe Leu Ser Leu Pro  
                     130                      135

&lt;210&gt; 4145

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4145

Met Phe Val Leu Glu Phe Val Glu Pro Trp His Val Asp His Ser Ser  
 1                      5                      10                      15  
 Leu Gly Ser Ala Asp Ser Gly Leu Gln Ser Leu Ala Ala Val Thr Ala  
                     20                      25                      30  
 Ala Lys Ala Arg Leu Tyr Ser Arg Arg Ser Leu Leu Ser Leu Ser Trp  
                     35                      40                      45  
 Thr Leu Pro Leu Ser Ser Arg Val Trp Ala Gly Arg Lys Glu Pro Leu  
                     50                      55                      60  
 Arg Lys Leu Asp Ser Leu Trp Thr Leu Pro Leu Glu Ile Ala Val Val  
 65                      70                      75                      80

Arg Val Leu Ser Gly Trp Phe Leu Ser Leu Ser Arg Tyr Gln Ala Leu  
                             85                            90                            95  
 His Trp Leu His Arg Pro Ile Gln Ser Val Val Gln Arg Ile Lys Pro  
                             100                            105                            110  
 Ser Lys Thr Thr Gln Val  
                             115

<210> 4146

<211> 404

<212> PRT

<213> Homo sapiens

<400> 4146

Met Ile Thr Glu Ala Leu Ala Gln Gly Gly Met His Ile Arg Ala Arg  
       1                            5                            10                            15  
 Phe Pro Pro Thr Thr Ala Val Ser Ala Ile Pro Ser Ser Ser Ile Pro  
                             20                            25                            30  
 Leu Gly Arg Gln Pro Met Ala Gln Val Ser Gln Ser Ser Leu Pro Met  
                             35                            40                            45  
 Leu Ser Ser Pro Ser Pro Gly Gln Gln Val Gln Thr Pro Gln Ser Met  
                             50                            55                            60  
 Pro Pro Pro Pro Gln Pro Ser Pro Gln Pro Gly Gln Pro Ser Ser Gln  
       65                            70                            75                            80  
 Pro Asn Ser Asn Val Ser Ser Gly Pro Ala Pro Ser Pro Ser Ser Phe  
                             85                            90                            95  
 Leu Pro Ser Pro Ser Pro Gln Pro Ser Gln Ser Pro Val Thr Ala Arg  
                             100                            105                            110  
 Thr Pro Gln Asn Phe Ser Val Pro Ser Pro Gly Pro Leu Asn Thr Pro

115	120	125
Val Asn Pro Ser Ser Val Met Ser Pro Ala Gly Ser Ser Gln Ala Glu		
130	135	140
Glu Gln Gln Tyr Leu Asp Lys Leu Lys Gln Leu Ser Lys Tyr Ile Glu		
145	150	155
Pro Leu Arg Arg Met Ile Asn Lys Ile Asp Lys Asn Glu Asp Arg Lys		
165	170	175
Lys Asp Leu Ser Lys Met Lys Ser Leu Leu Asp Ile Leu Thr Asp Pro		
180	185	190
Ser Lys Arg Cys Pro Leu Lys Thr Leu Gln Lys Cys Glu Ile Ala Leu		
195	200	205
Glu Lys Leu Lys Asn Asp Met Ala Val Pro Thr Pro Pro Pro Pro Pro		
210	215	220
Val Pro Pro Thr Lys Gln Gln Tyr Leu Cys Gln Pro Leu Leu Asp Ala		
225	230	235
Val Leu Ala Asn Ile Arg Ser Pro Val Phe Asn His Ser Leu Tyr Arg		
245	250	255
Thr Phe Val Pro Ala Met Thr Ala Ile His Gly Pro Pro Ile Thr Ala		
260	265	270
Pro Val Val Cys Thr Arg Lys Arg Arg Leu Glu Asp Asp Glu Arg Gln		
275	280	285
Ser Ile Pro Ser Val Leu Gln Gly Glu Val Ala Arg Leu Asp Pro Lys		
290	295	300
Phe Leu Val Asn Leu Asp Pro Ser His Cys Ser Asn Asn Gly Thr Val		
305	310	315
His Leu Ile Cys Lys Leu Asp Asp Lys Asp Leu Pro Ser Val Pro Pro		
325	330	335
Leu Glu Leu Ser Val Pro Ala Asp Tyr Pro Ala Gln Ser Pro Leu Trp		
340	345	350



Ile Asp Arg Gln Trp Gln Tyr Asp Ala Asn Pro Phe Leu Gln Ser Val  
 355 360 365  
 His Arg Cys Met Thr Ser Arg Leu Leu Gln Leu Pro Asp Lys His Ser  
 370 375 380  
 Val Thr Ala Leu Leu Asn Thr Trp Ala Gln Ser Val His Gln Ala Cys  
 385 390 395 400  
 Leu Thr Ala Ala

<210> 4147

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4147

Met Arg Glu Ile Cys Ile Lys Asn Thr Lys Arg Leu Lys Thr Gly Thr  
 1 5 10 15  
 Glu Cys Ser Arg Thr Gly Ser Gln Gly Leu Arg Asp Pro Gly Pro Ser  
 20 25 30  
 Ser Ala Arg Pro Trp Trp Gly Arg Ala Val Gly Arg Arg Glu Ala Gly  
 35 40 45  
 Phe Pro Arg Val His Ala Arg Cys Pro Ser Ala Leu Ala Ser Leu Pro  
 50 55 60  
 Pro Cys Val Ala Cys Ser Pro Phe Ser Leu Pro Asp Pro Gly Cys Phe  
 65 70 75 80  
 Asp Asn Leu Gln Ala Leu Arg Val Asn Ala Leu Leu Leu Ser Phe Ile  
 85 90 95  
 Pro Gln Arg Cys Thr Val Leu Gly Thr Gly Arg Ser Trp Ala Cys Lys

100 105 110  
Glu Glu

<210> 4148

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4148

Met Gln Tyr Tyr Gly Pro Ala Thr Trp Ala Asp Gly Ser Trp Arg Tyr  
1 5 10 15  
Arg Thr Pro Ile Tyr Met Leu Asn His Ile Ile Trp Leu Gln Ala Val  
20 25 30  
Leu Glu Ile Ile Thr Asn Asp Thr Ala Arg Ala Leu Asn Leu Leu Ala  
35 40 45  
Arg Lys Ser Thr Glu Met Arg Asn Ala Val Tyr Gln Asn Arg Leu Ala  
50 55 60  
Leu Asp Tyr Leu Leu Ala Gln Glu Gly Gly Val Cys Arg Lys Phe Ser  
65 70 75 80  
Leu Thr Asn Cys Cys Leu Lys Ile Asp Asp Asn Gly Lys Val Val Lys  
85 90 95  
Gln Lys Ala Ala Arg Ile Gln Lys Leu Ala His Ile Pro Val Lys Thr  
100 105 110

<210> 4149

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4149

Met Asp Lys Phe Pro Asn Ala Tyr Thr Leu Pro Arg Leu Asn Gln Glu  
1 5 10 15  
Glu Ile Glu Ser Leu Asn Arg Pro Thr Met Ser Ser Glu Val Glu Ala  
20 25 30  
Val Ile Asn Ser Ile Pro Thr Lys Lys Gly Pro Gly Pro Asp Gly Phe  
35 40 45  
Thr Asp Glu Phe Tyr Gln Met Tyr Lys Glu Glu Leu Val Pro Phe Ile  
50 55 60  
Gln Ile Glu Thr Ile Pro Lys Ile Glu Ala Glu Gly Leu Leu Leu Asn  
65 70 75 80  
Ser Phe Cys Glu Val Ser Ile Ile Leu Ile Pro Lys Pro Gly Arg His  
85 90 95  
Thr Lys Gln Asn Lys Thr Lys Gln Asn Lys Thr Lys Lys Lys Thr Ser  
100 105 110  
Asp Gln Tyr Pro  
115

<210> 4150

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4150

Met Asp Gly Arg Gly Ala Phe Trp Thr Val Ala Ile Pro Arg Ala Arg

1 5 10 15  
Gln Glu Gly Leu Gly Arg Leu Gly Leu Pro Phe Pro Val Lys Arg Thr  
20 25 30  
Pro Pro Ala Pro Gln Asn Pro Gly Gly Ser Thr Gln Ala Pro Gln Arg  
35 40 45  
Val Val Gly Lys Ser His Ser Gly Ile Arg Met Pro Ala Lys Ser Arg  
50 55 60  
Asn Leu Arg Leu Glu Ser Lys Leu Asn Arg Lys Val Val Lys Tyr Lys  
65 70 75 80  
Trp Gly Lys Gln Gly Ser Gly Ala Gly Arg Glu Leu Val Pro Ala Phe  
85 90 95  
Pro Thr Asn Ala Gly Leu Gly Arg Arg Asp Arg Cys Arg Pro Pro Pro  
100 105 110  
Ala Gly Gly Asp Val Ala Ser His Gly Leu Pro Gly Ser Gly Val Gly  
115 120 125  
Tyr Ser Cys Asn Gln Arg Glu Glu Gly Leu Arg Gly Gly Cys Gly Gly  
130 135 140  
Ile Pro His Val Pro Leu Phe Leu Ser Pro Leu Pro Leu Asp Ala Ser  
145 150 155 160  
Gly Gln Arg Pro Ser Ser Thr Tyr Arg Gln Ser Leu Arg Arg Gly Leu  
165 170 175  
Gly Thr Arg Ala His Gln Ser Pro Ala Asn Glu Ile Pro Glu Leu Gly  
180 185 190  
Asp Leu Arg Gly Ser Arg Leu Ala Gln Glu Pro Ala Val Leu Phe Gly  
195 200 205  
Leu Arg Pro Ser Ile Ser Lys Arg Gly Leu Leu Ala Arg Arg Leu Trp  
210 215 220  
Ala Gln Pro Met Leu Leu Ser Gly Trp Val Val Ser Thr Thr Thr Thr  
225 230 235 240

Ile Ile Thr Val Thr Val Thr Phe Thr Pro Thr Gly Leu Leu Cys Val  
                             245                            250                            255  
 Lys His Ser Arg Gly Pro Leu Gln Pro Thr Cys Gln Glu Ser Ala Pro  
                             260                            265                            270  
 Glu Asn Arg Val Gly Lys Gly Gln Cys Pro Ser Glu Ser Ser Cys Arg  
                             275                            280                            285  
 Gln Lys Ala Gly Glu Val Arg Ser Phe Val Tyr Leu Lys Gly Asn Lys  
                             290                            295                            300  
 Leu Leu  
 305

<210> 4151

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4151

Met Ala Pro Thr Ser Thr Trp Ala Pro Gly Leu Gly Thr Gly Phe Ser  
           1                            5                            10                            15  
 Leu Gly Ser Ser Ser Ser Leu Leu Pro Thr Thr Asp Pro His Gln Val  
                             20                            25                            30  
 Leu Ser Arg Ser Gly Pro Asn Gly Ser Leu Glu Phe Gly Pro Leu Val  
                             35                            40                            45  
 Ser Ser Pro Ala Ser Pro Phe Leu Val Gln Ala Gln Ile Ser Leu Thr  
                             50                            55                            60  
 Lys Ile Val Gln Leu Pro Ser Arg Asn Gly Glu Phe Ile Pro Leu Ile  
                             65                            70                            75                            80  
 Leu Pro Pro Ser Phe Arg Leu Pro Thr Leu Phe Cys Ser Gln Ser Asp

	85	90	95
Leu Lys Val Phe Leu Trp Leu His Ser Cys Ala Leu Lys Leu Ser Val			
100	105	110	
Ala Pro Gln Gly Pro Gln Arg Arg Gly Arg Gly Gly			
115	120		

&lt;210&gt; 4152

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4152

Met Lys Ala Thr Asn Phe Leu Leu His Ser Cys Leu Ala Ala Ile Tyr			
1	5	10	15
Leu Gly Gln Pro Ile Ser Leu Ala Pro Gln Arg His Thr Arg Leu Gln			
20	25	30	
Tyr Pro Lys Arg Pro Tyr Gln Phe Leu Ser Glu Ala Arg Gln Ile Val			
35	40	45	
Lys Asn Gln Ile Cys Ser Lys Val Leu Gly Pro Pro Leu Ser Ser Asp			
50	55	60	
Arg Cys Arg Gln Val Phe Ser Leu Ala Gln Val Pro Val Ala Ser Leu			
65	70	75	80
Pro Leu Glu Val Trp Pro Ala Ser Leu Ala Val Asn Pro Val Arg Gly			
85	90	95	
Pro His Leu Ser Leu Ser Ala Ala Ile Ser Phe Cys Thr Ala Ala Ile			
100	105	110	
Leu Leu Pro Ala Ser Ser Pro Pro Pro Ser Tyr Phe Leu Phe Ser Leu			
115	120	125	

Leu Pro Phe

130

<210> 4153

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4153

Met Thr Lys Glu Tyr Gln Asp Leu Gln His Leu Asp Asn Glu Glu Ser

1 5 10 15

Asp His His Gln Leu Arg Lys Gly Glu Gly His Leu Ala Leu Pro Leu

20 25 30

Gln Gly Glu Asn Leu Ala Val Leu His Pro Pro Ala Thr Ala Pro Thr

35 40 45

Leu Ala Arg Glu Pro Gly Ser Leu Ser Gly Ser Val Ser Leu Pro Gln

50 55 60

His Trp Glu Arg Cys Arg Asn Cys Leu Ser Gln Glu Arg Gly Gly Val

65 70 75 80

Trp Gly Trp Ile Pro Phe Ile Gly Asp Arg Cys Pro Lys Leu Ser Cys

85 90 95

Ala Ser Trp Pro Ser Glu Val Asp Pro Gly Val Trp Glu Gln Leu Glu

100 105 110

Ala Gly Glu Met Arg Ser Leu Ser Ala Ser Tyr Asp Glu Val Thr Pro

115 120 125

Pro Leu Pro Phe Pro Phe Gln His His Pro Gly Thr Pro Val Val Arg

130 135 140

Ala Cys Ala Cys Val Cys Gln

145

150

&lt;210&gt; 4154

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4154

Met Gly Gly Val Pro Glu Pro Phe Pro Ser Pro Leu Arg Arg Gln Gln

1

5

10

15

Arg Arg Val Gly Lys Trp Ser Gly Ser Ser Leu Gly Gly Leu Ala Gln

20

25

30

Val Leu Arg Asn Cys Asn Arg Lys Cys Arg Ser Trp Ser Glu Pro Met

35

40

45

Arg Arg Lys Pro His Leu Cys Ile Ala His Ala Ser Trp Arg Gly Asp

50

55

60

Ile Ile His Ser His Ala Ser His Leu Ser Pro Gln Gly Pro Arg Glu

65

70

75

80

Lys Pro Gln Thr Pro Phe Ser Cys Arg Val Trp Gly Trp Trp Cys Cys

85

90

95

Arg Gly Arg Ala Gly Trp Gly Ser Pro Asp Phe Phe Cys Pro

100

105

110

&lt;210&gt; 4155

&lt;211&gt; 589

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4155

Met Ala Ala Glu Lys Gln Val Pro Gly Gly Gly Gly Gly Gly Gly Ser  
 1 5 10 15  
 Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Arg Gly  
 20 25 30  
 Ala Gly Gly Glu Glu Asn Lys Glu Asn Glu Arg Pro Ser Ala Gly Ser  
 35 40 45  
 Lys Ala Asn Lys Glu Phe Gly Asp Ser Leu Ser Leu Glu Ile Leu Gln  
 50 55 60  
 Ile Ile Lys Glu Ser Gln Gln Gln His Gly Leu Arg His Gly Asp Phe  
 65 70 75 80  
 Gln Arg Tyr Arg Tyr Leu Leu Leu Val Leu Met Asp Ala Glu Arg Ala  
 85 90 95  
 Trp Ser Tyr Ala Met Gln Leu Lys Gln Glu Ala Asn Thr Glu Pro Arg  
 100 105 110  
 Lys Arg Phe His Leu Leu Ser Arg Leu Arg Lys Ala Val Lys His Ala  
 115 120 125  
 Glu Glu Leu Glu Arg Leu Cys Glu Ser Asn Arg Val Asp Ala Lys Thr  
 130 135 140  
 Lys Leu Glu Ala Gln Ala Tyr Thr Ala Tyr Leu Ser Gly Met Leu Arg  
 145 150 155 160  
 Phe Glu His Gln Glu Trp Lys Ala Ala Ile Glu Ala Phe Asn Lys Cys  
 165 170 175  
 Lys Thr Ile Tyr Glu Lys Leu Ala Ser Ala Phe Thr Glu Glu Gln Ala  
 180 185 190  
 Val Leu Tyr Asn Gln Arg Val Glu Glu Ile Ser Pro Asn Ile Arg Tyr  
 195 200 205  
 Cys Ala Tyr Asn Ile Gly Asp Gln Ser Ala Ile Asn Glu Leu Met Gln

210	215	220
Met Arg Leu Arg Ser Gly Gly Thr Glu Gly Leu Leu Ala Glu Lys Leu		
225	230	235
Glu Ala Leu Ile Thr Gln Thr Arg Ala Lys Gln Ala Ala Thr Met Ser		
245	250	255
Glu Val Glu Trp Arg Gly Arg Thr Val Pro Val Lys Ile Asp Lys Val		
260	265	270
Arg Ile Phe Leu Leu Gly Leu Ala Asp Asn Glu Ala Ala Ile Val Gln		
275	280	285
Ala Glu Ser Glu Glu Thr Lys Glu Arg Leu Phe Glu Ser Met Leu Ser		
290	295	300
Glu Cys Arg Asp Ala Ile Gln Val Val Arg Glu Glu Leu Lys Pro Asp		
305	310	315
Gln Lys Gln Arg Asp Tyr Ile Leu Glu Gly Glu Pro Gly Lys Val Ser		
325	330	335
Asn Leu Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr		
340	345	350
Ala Ile Lys Arg Asn Glu Asn Met Ala Lys Gly Leu Gln Arg Ala Leu		
355	360	365
Leu Gln Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln		
370	375	380
Asp Leu Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu		
385	390	395
Leu Gln Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile		
405	410	415
Gly Leu Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala		
420	425	430
Gln Ser Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr		
435	440	445

Asp Arg Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala  
 450 455 460

Phe Lys Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr  
 465 470 475 480

Gln Val Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp  
 485 490 495

Ala Asn Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp  
 500 505 510

Asn Lys Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser  
 515 520 525

Leu Val Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln  
 530 535 540

Pro Ile Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val  
 545 550 555 560

Ala Phe Pro Pro Leu Glu Asp Glu Leu Glu Gln Lys Thr Lys Ser Gly  
 565 570 575

Leu Thr Gly Tyr Ile Lys Gly Ile Phe Gly Phe Arg Ser  
 580 585

<210> 4156

<211> 356

<212> PRT

<213> Homo sapiens

<400> 4156

Met Phe Ser Ser Tyr Pro Leu Pro Asn Cys Tyr Leu Ser Asp Ile Thr  
 1 5 10 15

Arg Asn Ala Gly Ile Lys Gln Asp Asn Asp Leu Asp Lys Leu Leu Leu

20	25	30
Cys Leu Lys Ile Ser Asp Lys Gln Thr Glu Trp Ile Glu Asn Cys Gln		
35	40	45
Arg Gln Phe Cys Lys Met Met Lys Ala Lys Pro Asp Ile Ile Ser Gly		
50	55	60
Glu Ala Leu Ile Glu Leu Leu Glu Lys Phe Val Leu His Leu Thr Glu		
65	70	75
Ser Pro Ser Glu Cys Tyr Phe Pro Ser Val Glu Tyr Thr Ala Thr Asp		
85	90	95
Ala Asn Val Lys Asn Glu Ser Leu Ser Ser Val Gln Gln Leu Gly Ile		
100	105	110
Lys Met Thr Val Arg Tyr Gly Lys Phe Leu Ser Leu Leu Lys Asp Gly		
115	120	125
Ala Glu Asn Asp Leu Thr Trp Val Leu Lys His Cys Glu Arg Phe Leu		
130	135	140
Lys Gln Gln Gln Thr Ser Ile Lys Ser Ser Leu Leu Cys Leu Gln Gly		
145	150	155
Asn Tyr Ala Gly His Asp Trp Phe Val Ser Ser Leu Phe Met Ile Met		
165	170	175
Leu Gly Asp Lys Glu Lys Thr Phe Gln Phe Leu His Gln Phe Ser Arg		
180	185	190
Leu Leu Thr Ser Ala Phe Leu Trp Ser Pro Arg Leu His Ile Ser Ser		
195	200	205
Tyr Leu Pro Asn Asp Thr Val Glu Ser Gly Ile His Pro Val Tyr Phe		
210	215	220
Cys Ser Thr His Tyr Ile Glu Met Leu Leu Lys Ala Glu Leu Pro Leu		
225	230	235
Val Phe Ser Ala Phe His Met Ser Gly Phe Ala Pro Ser Gln Ile Cys		
245	250	255

Leu Gln Trp Ile Thr Gln Cys Phe Trp Asn Tyr Leu Asp Trp Ile Glu  
 260 265 270  
 Ile Cys His Tyr Ile Ala Thr Cys Val Phe Leu Gly Pro Asp Tyr Gln  
 275 280 285  
 Val Tyr Ile Cys Ile Ala Val Phe Lys His Leu Gln Gln Asp Ile Leu  
 290 295 300  
 Gln His Thr Gln Thr Gln Asp Leu Gln Val Phe Leu Lys Glu Glu Ala  
 305 310 315 320  
 Leu His Gly Phe Arg Val Ser Asp Tyr Phe Glu Tyr Met Glu Ile Leu  
 325 330 335  
 Glu Gln Asn Tyr Arg Thr Val Leu Leu Arg Asp Met Arg Asn Ile Arg  
 340 345 350  
 Leu Gln Ser Thr  
 355

<210> 4157

<211> 137

<212> PRT

<213> Homo sapiens

<400> 4157

Met Ser Asn Cys Phe Leu Lys Val Cys Pro Ala Val Ser Ser Tyr Ser  
 1 5 10 15  
 Pro Leu Ser Val Gln Val Leu Phe Tyr Phe Pro Ile Ala Pro Cys Pro  
 20 25 30  
 His Arg Val Gly Val Gly Glu Val Gln Cys Ala Cys Val His Ile His  
 35 40 45  
 Ile Phe Arg Cys Tyr Gln Leu Gly Ser Gln Leu Ile Cys Ala Ser Phe

50                      55                      60  
 Leu Gly Thr Val Leu His Pro Phe Pro Pro Val Gly Ser Ala Phe Glu  
 65                      70                      75                      80  
 Ile Gln Thr Ser Ile Leu Asn Tyr Thr Ile Leu Thr Asn Ser Leu Thr  
                     85                      90                      95  
 Pro Met Arg Leu Tyr Leu Pro His Val Arg Val Ser Gly Ser Leu Cys  
                     100                      105                      110  
 Glu Phe Val Tyr Arg Tyr Leu Lys Ser Asn Gln Leu Ser His Tyr Ser  
                     115                      120                      125  
 His Gln Ser Ser Pro Arg His His Phe  
                     130                      135

<210> 4158

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4158

Met Asn His Leu Pro Pro Asn His Tyr Arg Ser His Val Phe Thr Cys  
 1                      5                      10                      15  
 His Val Asp Gln Tyr Leu Thr Val Glu Thr Ala Gly Gly Met Glu Lys  
                     20                      25                      30  
 Glu Ala Val Ser Val Thr Val Leu Leu Ser Ala Ala Pro Cys Leu Leu  
                     35                      40                      45  
 Ser Cys Phe Leu Gly Ser Ser Val Ser Gly Leu Ala Phe Trp Val Ser  
                     50                      55                      60  
 Gln Gln Lys Thr Lys Gly Pro Glu Arg Cys Lys Asn Thr His His Leu  
 65                      70                      75                      80

Ala Gly Asn Asn Phe Pro Ala Cys Tyr Leu Phe Arg Asp Pro Glu His

85

90

95

Thr Ala Phe Pro Arg Arg Leu Leu Pro Pro Ala Thr Glu Glu

100

105

110

&lt;210&gt; 4159

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4159

Met Ala Cys Gly Ala Thr Leu Lys Arg Pro Met Glu Phe Glu Ala Ala

1

5

10

15

Leu Leu Ser Pro Gly Ser Pro Lys Arg Arg Arg Cys Ala Pro Leu Pro

20

25

30

Gly Pro Thr Pro Gly Leu Arg Pro Pro Asp Ala Glu Pro Pro Pro Pro

35

40

45

Phe Gln Thr Gln Thr Pro Pro Gln Ser Leu Gln Gln Pro Ala Pro Pro

50

55

60

Gly Ser Glu Arg Arg Leu Pro Thr Pro Glu Gln Ile Phe Gln Asn Ile

65

70

75

80

Lys Gln Glu Tyr Ser Arg Tyr Gln Arg Trp Arg His Leu Glu Val Val

85

90

95

Leu Asn Gln Ser Glu Ala Cys Ala Ser Glu Ser Gln Pro His Ser Ser

100

105

110

Ala Leu Thr Ala Pro Ser Ser Pro Gly Ser Ser Trp Met Lys Lys Asp

115

120

125

Gln Pro Thr Phe Thr Leu Arg Gln Val Gly Ile Ile Cys Glu Arg Leu

130	135	140
Leu Lys Asp Tyr Glu Asp Lys Ile Arg Glu Glu Tyr Glu Gln Ile Leu		
145	150	155
Asn Thr Lys Leu Ala Glu Gln Tyr Glu Ser Phe Val Lys Phe Thr His		
165	170	175
Asp Gln Ile Met Arg Arg Tyr Gly Thr Arg Pro Thr Ser Tyr Val Ser		
180	185	190

&lt;210&gt; 4160

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4160

Met Thr Ala Met Glu Met Ser Thr Glu Leu Ser Met Phe Phe Trp Lys		
1	5	10
Glu Thr Gln Thr Arg Ile Pro Gly Arg Trp Ser Gly Arg Arg Arg Glu		
20	25	30
Ser Gln Ala Arg Arg Met Val Ala Arg Arg Gly Arg Gly Ala Ser Arg		
35	40	45
Gly Arg Glu Phe Arg Gly Gln Glu Asn Gly Leu Asp Gly Thr Lys Ser		
50	55	60
Gly Gly Pro Ser Gly Arg Gly Thr Glu Arg Gly Arg Arg Gly Arg Gly		
65	70	75
Arg Gly Arg Gly Gly Ser Gly Arg Arg Gly Gly Arg Phe Ser Ala Gln		
85	90	95
Gly Met Gly Thr Phe Asn Pro Ala Asp Tyr Ala Glu Pro Ala Asn Thr		
100	105	110



Asp Asp Asn Tyr Gly Asn Ser Ser Val Ser Ser Ser Leu Asn Ser Gly  
115 120 125  
Ser Ser Leu Gly Leu Ser Leu Gly Ser Asn Ser Thr Val Thr Ala Ser  
130 135 140  
Thr Arg Ser Ser Val Ala Thr Thr Ser Gly Lys Ala Pro Pro Asn Leu  
145 150 155 160  
Pro Pro Gly Val Pro Pro Leu Leu Pro Asn Pro Tyr Ile Met Ala Pro  
165 170 175  
Gly Leu Leu His Ala Tyr Pro Pro Gln Val Tyr Gly Tyr Asp Asp Leu  
180 185 190  
Gln Met Leu Gln Thr Arg Phe Pro Leu Asp Tyr Tyr Ser Ile Pro Phe  
195 200 205  
Pro Thr Pro Thr Thr Pro Leu Thr Gly Arg Asp Gly Ser Leu Ala Ser  
210 215 220  
Asn Pro Tyr Ser Gly Asp Leu Thr Lys Phe Gly Arg Gly Asp Ala Ser  
225 230 235 240  
Ser Pro Ala Pro Ala Thr Thr Leu Ala Gln Pro Gln Gln Asn Gln Thr  
245 250 255  
Gln Thr His His Thr Thr Gln Gln Thr Phe Leu Asn Pro Ala Leu Pro  
260 265 270  
Pro Gly Tyr Ser Tyr Thr Ser Leu Pro Tyr Tyr Thr Gly Val Pro Gly  
275 280 285  
Leu Pro Ser Thr Phe Gln Tyr Gly Pro Ala Val Phe Pro Val Ala Pro  
290 295 300  
Thr Ser Ser Lys Gln His Gly Val Asn Val Ser Val Asn Ala Ser Ala  
305 310 315 320  
Thr Pro Phe Gln Gln Pro Ser Gly Tyr Gly Ser His Gly Tyr Asn Thr  
325 330 335  
Gly Arg Lys Tyr Pro Pro Pro Tyr Lys His Phe Trp Thr Ala Glu Ser

340

345

350

&lt;210&gt; 4161

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4161

Met Glu Ala Leu Leu Ser Val Gln Glu Ala Ser Arg Cys Pro Pro Gly

1

5

10

15

Phe Phe Pro Ser Ser Gly Trp Pro Arg Ser Gln Ala Trp Ser Thr Arg

20

25

30

Ser Gln Pro Val Gln Arg Pro Val Ala Cys Leu Pro Gly Pro Leu Pro

35

40

45

Gly Leu Ala Leu Pro Gly Asp Leu Ser Ile Ile Pro Glu Lys Trp Met

50

55

60

Glu Arg Val Met Ala Pro Leu Lys Arg Gln Thr Ser Arg Arg Leu Glu

65

70

75

80

Glu Ser Lys Gly Ser Cys Pro Gln Arg Pro Val Pro Ala Pro Thr Gln

85

90

95

Pro Leu Val Cys Pro Pro Ser Leu Leu Ser Ser Thr Leu Leu Cys Cys

100

105

110

Pro Leu Leu Leu Thr Arg

115

&lt;210&gt; 4162

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4162

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Met Met Leu Met Gln Ala Leu Val Leu Phe Thr Leu Asp Ser Leu Asp
  1             5             10             15
Met Leu Pro Ala Val Lys Ala Thr Trp Leu Tyr Gly Ile Gln Ile Thr
          20             25             30
Ser Leu Leu Leu Val Cys Ile Leu Gln Phe Phe Asn Ser Met Ile Leu
          35             40             45
Gly Ser Leu Leu Ile Ser Phe Asn Leu Ser Val Phe Ile Ala Arg Lys
          50             55             60
Leu Gln Lys Asn Leu Lys Thr Gly Ser Phe Leu Asn Arg Leu Gly Lys
          65             70             75             80
Leu Leu Leu His Leu Phe Met Val Leu Cys Leu Thr Leu Phe Leu Asn
          85             90             95
Asn Ile Ile Lys Lys Ile Leu Asn Leu Lys Ser Asp Glu His Ile Phe
          100            105            110
Lys Phe Leu Lys Ala Lys Phe Gly Leu Gly Ala Thr Arg Asp Phe Asp
          115            120            125
Ala Asn Leu Tyr Leu Cys Glu Glu Ala Phe Gly Leu Leu Pro Phe Asn
          130            135            140
Thr Phe Gly Arg Leu Ser Asp Thr Leu Leu Phe Tyr Ala Tyr Ile Phe
          145            150            155            160
Val Leu Ser Ile Thr Val Ile Val Ala Phe Val Val Ala Phe His Asn
          165            170            175
Leu Ser Asp Ser Thr Asn Gln Gln Ser Val Gly Lys Met Glu Lys Gly
          180            185            190
Thr Val Asp Leu Lys Pro Glu Thr Ala Tyr Asn Leu Ile His Thr Ile

```

195                      200                      205  
 Leu Phe Gly Phe Leu Ala Leu Ser Thr Met Arg Met Lys Tyr Leu Trp  
 210                      215                      220  
 Thr Ser His Met Cys Val Phe Ala Ser Phe Gly Leu Cys Ser Pro Glu  
 225                      230                      235                      240  
 Ile Trp Glu Leu Leu Leu Lys Ser Val His Leu Tyr Asn Pro Lys Arg  
 245                      250                      255  
 Ile Cys Ile Met Arg Tyr Ser Val Pro Ile Leu Ile Leu Leu Tyr Leu  
 260                      265                      270  
 Cys Tyr Lys Asn Gln Lys Ser  
 275

<210> 4163

<211> 221

<212> PRT

<213> Homo sapiens

<400> 4163

Met Ala Ser Ser Thr Ser Leu Pro Ala Pro Gly Ser Arg Pro Lys Lys  
 1                      5                      10                      15  
 Pro Leu Gly Lys Met Ala Asp Trp Phe Arg Gln Thr Leu Leu Lys Lys  
 20                      25                      30  
 Pro Lys Lys Arg Pro Asn Ser Pro Glu Ser Thr Ser Ser Asp Ala Ser  
 35                      40                      45  
 Gln Pro Thr Ser Gln Asp Asn Pro Leu Pro Pro Ser Leu Ser Ser Val  
 50                      55                      60  
 Thr Ser Pro Ser Leu Pro Pro Thr His Ala Ser Asp Ser Gly Ser Ser  
 65                      70                      75                      80

<210> 4164

<211> 458

<212> PRT

<213> Homo sapiens

<400> 4164

出証特 2 0 0 4 - 3 0 5 9 6 6 0

20	25	30
Ser Thr Met Leu Thr Gly Ile Ala Val Gly Ala Leu Leu Ala Leu Ala		
35	40	45
Leu Val Gly Val Leu Ile Leu Phe Met Phe Arg Arg Leu Arg Gln Phe		
50	55	60
Arg Gln Ala Gln Pro Thr Pro Gln Tyr Arg Phe Arg Lys Arg Asp Lys		
65	70	75
Val Met Phe Tyr Gly Arg Lys Ile Met Arg Lys Val Thr Thr Leu Pro		
85	90	95
Asn Thr Leu Val Glu Asn Thr Ala Leu Pro Arg Gln Arg Ala Arg Lys		
100	105	110
Arg Thr Lys Val Leu Ser Leu Ala Lys Arg Ile Leu Arg Phe Lys Lys		
115	120	125
Glu Tyr Pro Ala Leu Gln Pro Lys Glu Pro Pro Pro Ser Leu Leu Glu		
130	135	140
Ala Asp Leu Thr Glu Phe Asp Val Lys Asn Ser His Leu Pro Ser Glu		
145	150	155
Val Leu Tyr Met Leu Lys Asn Val Arg Val Leu Gly His Phe Glu Lys		
165	170	175
Pro Leu Phe Leu Glu Leu Cys Lys His Ile Val Phe Val Gln Leu Gln		
180	185	190
Glu Gly Glu His Val Leu Gln Pro Arg Glu Pro Asp Pro Ser Ile Cys		
195	200	205
Val Val Gln Asp Gly Arg Leu Glu Val Cys Ile Gln Asp Thr Asp Gly		
210	215	220
Thr Glu Val Val Val Lys Glu Val Leu Ala Gly Asp Ser Val His Ser		
225	230	235
Leu Leu Ser Ile Leu Asp Ile Ile Thr Gly His Ala Ala Pro Tyr Lys		
245	250	255

Thr Val Ser Val Arg Ala Ala Ile Pro Ser Thr Ile Leu Arg Leu Pro  
260 265 270  
Ala Ala Ala Phe His Gly Val Phe Glu Lys Tyr Pro Glu Thr Leu Val  
275 280 285  
Arg Val Val Gln Ile Ile Met Val Arg Leu Gln Arg Val Thr Phe Leu  
290 295 300  
Ala Leu His Asn Tyr Leu Gly Leu Thr Thr Glu Leu Phe Asn Ala Glu  
305 310 315 320  
Ser Gln Ala Ile Pro Leu Val Ser Val Ala Ser Val Ala Ala Gly Lys  
325 330 335  
Ala Lys Lys Gln Val Phe Tyr Gly Glu Glu Glu Arg Leu Lys Lys Pro  
340 345 350  
Pro Arg Leu Gln Glu Ser Cys Asp Ser Asp His Gly Gly Gly Arg Pro  
355 360 365  
Ala Ala Ala Gly Pro Leu Leu Lys Arg Ser His Ser Val Pro Ala Pro  
370 375 380  
Ser Ile Arg Lys Gln Ile Leu Glu Glu Leu Glu Lys Pro Gly Ala Gly  
385 390 395 400  
Asp Pro Asp Pro Ser Ala Pro Gln Ala Arg Val Leu Cys Leu Leu Pro  
405 410 415  
Gln Cys Leu Gly Gly Leu Pro Pro Thr Asp Thr Ser Val Tyr Ser Ser  
420 425 430  
Ala Ser Ser Asp Cys Cys Gly Cys Ser Met Pro Val Leu Cys Ile Met  
435 440 445  
Gly His Lys Pro His Val Thr Val Asp Thr  
450 455

&lt;210&gt; 4165

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4165

Met Cys His His Ala Arg Leu Ile Val Phe Val Phe Leu Val Glu Thr

1 5 10 15

Gly Phe Leu His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly

20 25 30

Asp Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Met Ser

35 40 45

His Cys Ala Gln Pro Thr Ile Ser Tyr Phe His Val Phe Leu Cys Val

50 55 60

Leu Phe Tyr Phe Ser Arg Trp Ser Leu Ser Val Ala Gln Ala Gly Val

65 70 75 80

Gln Trp Arg Asp Leu Gly Ser Leu Pro Gly Phe Lys Arg Phe Ser Cys

85 90 95

Leu Ser Leu Pro Ser Asn Trp Asp Cys Arg His Pro Pro Ser Cys Pro

100 105 110

Ala Lys Phe Cys Thr Phe Val Glu Met Glu Phe His His Val Gly Gln

115 120 125

Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu Pro Thr Leu Ala Ser

130 135 140

Gln Ser Ala Gly Ile Thr Gly Val Ser His His Ala Trp Thr Arg Cys

145 150 155 160

Cys Cys Cys Phe



&lt;210&gt; 4166

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4166

Met Pro Thr Met Ser Ser Lys Val Leu Asp Ser Leu Val Val Ala Leu

1 5 10 15

Leu Ser Tyr Trp Leu Asp Asn Pro Lys His Cys Arg Lys Leu His Ser

20 25 30

Ala Pro Leu Gly Leu Pro Gly Ser Ile Arg Leu Leu Pro Leu Leu Ser

35 40 45

Leu Gly Thr His Leu Ser Lys Ser Ser Ile Leu Lys Arg Lys Phe Leu

50 55 60

Phe Trp Arg Ser Phe Val Asn Lys Thr Ser Ile Gly Trp Ala Glu Trp

65 70 75 80

Leu Ile Thr Val Ile Ser Ala Leu Arg Asp Ala Lys Val Gly Arg Ser

85 90 95

Pro Glu Val Arg Ser Leu Arg Pro Ala Trp Pro Thr Trp Trp Ser Pro

100 105 110

Val Ser Thr Lys Asn Thr Lys Lys Leu Gly Arg Tyr Gly Gly Ala Arg

115 120 125

Leu Trp Ser Gln Leu Phe Gly Arg Leu Arg Gln Asp Asn His Leu Asn

130 135 140

Arg Gly Asp Arg Gly Cys Ser Glu Pro Arg Leu Cys His Cys Pro Pro

145 150 155 160

Ala Trp Ala Thr Lys

165

&lt;210&gt; 4167

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4167

Met Pro Pro Arg Leu Ala Asn Ile Leu Tyr Phe Ser Arg Asp Gly Gly

1 5 10 15

Phe Cys Arg Val Gly Leu Ala Gly Leu Lys Leu Leu Ser Ser Gly Asp

20 25 30

Pro Pro Ala Ser Val Ser Arg Gly Ala Gly Ile Thr Gly Val Ser His

35 40 45

Arg Ala Arg Pro Leu Asn Thr Cys Gly Pro Val Ile His Pro Ala Leu

50 55 60

Lys Arg Ser Ser His Leu Pro Phe Trp Glu Leu Gly Glu Thr Ala Gln

65 70 75 80

Ile Val Thr Ala Pro Pro Pro Pro Arg Ala Pro Leu Thr Gly Leu Trp

85 90 95

Val Glu Pro Ala Pro Val Pro Ala Pro Ser Thr Glu Ala Gly Thr Val

100 105 110

His Thr Ala Ser Thr Ala Arg Pro Gly Glu Trp Ala Ala Val His Leu

115 120 125

Gly Cys Pro Ala Gln Ser Gln Ala Ser Ala Glu Pro Ile Leu Pro His

130 135 140

Cys Thr Gln His

145

&lt;210&gt; 4168

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4168

Met Phe Ile Phe Gly Ser Arg Arg Thr Arg Ala Gly Val Leu Arg Val

1 5 10 15

His Phe Arg Leu Lys Ala Tyr Thr Cys Arg Cys Ala Thr Cys Leu Phe

20 25 30

Ser Val Gln Gly Val His Val Gln Val Cys Tyr Val Phe Ile Phe Gly

35 40 45

Ser Arg Arg Thr Arg Ala Gly Val Leu Arg Val His Phe Arg Phe Lys

50 55 60

Ala Tyr Thr Cys Arg Cys Val Thr Cys Ser Phe Ser Ala Gln Gly Val

65 70 75 80

His Val Gln Val Cys His Met Gly Lys Ser Ser Val Thr Gly Val Trp

85 90 95

Cys Ala Asp Asn Phe Val Ala Gln Val Ile Ser Thr Val Pro Asp Val

100 105 110

Phe Gln Ser Ser Pro Ser Ser His Ser Pro Pro Ser Thr Phe Ser Phe

115 120 125

Lys Lys Lys Phe Ser Ser Gln His Phe Gly Arg Leu Arg Arg Ala Asp

130 135 140

His Glu Val Arg Ser Ser Arg Ser Pro

145 150

&lt;210&gt; 4169

&lt;211&gt; 369

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4169

Met Tyr Ser Pro Ile Ile Tyr Gln Ala Leu Cys Glu His Val Gln Thr

1 5 10 15

Gln Met Ser Leu Met Asn Asp Leu Thr Ser Lys Asn Ile Pro Asn Gly

20 25 30

Ile Pro Ala Val Pro Cys His Ala Pro Ser His Ser Glu Ser Gln Ala

35 40 45

Thr Pro His Ser Ser Tyr Gly Leu Cys Thr Ser Thr Pro Val Trp Ser

50 55 60

Leu Gln Arg Pro Pro Cys Pro Pro Lys Val His Ser Glu Val Gln Thr

65 70 75 80

Asp Gly Asn Ser Gln Phe Ala Ser Gln Gly Lys Thr Val Ser Ala Thr

85 90 95

Cys Thr Asp Val Leu Arg Asn Ser Phe Asn Thr Ser Pro Gly Val Pro

100 105 110

Cys Ser Leu Pro Lys Thr Asp Ile Ser Ala Ile Pro Thr Leu Gln Gln

115 120 125

Leu Gly Leu Val Asn Gly Ile Leu Pro Gln Gln Gly Ile His Lys Glu

130 135 140

Thr Asp Leu Leu Lys Cys Ile Gln Thr Tyr Leu Ser Leu Phe Arg Ser

145 150 155 160

His Gly Lys Glu Pro His Leu Asp Ser Gln Thr His Arg Ser Pro Thr

165 170 175

Gln Ser Gln Pro Ala Phe Leu Ala Thr Asn Glu Glu Ile Cys Ala Arg

180 185 190

Glu Gln Ile Arg Glu Ala Thr Ser Glu Arg Lys Asp Leu Asn Ile His  
195 200 205  
Val Arg Asp Thr Lys Thr Val Lys Asp Val Gln Lys Ala Lys Asn Val  
210 215 220  
Asn Lys Thr Ala Glu Lys Val Arg Ile Ile Lys Tyr Leu Leu Gly Glu  
225 230 235 240  
Leu Lys Ala Leu Val Ala Glu Gln Glu Asp Ser Glu Ile Gln Arg Leu  
245 250 255  
Ile Thr Glu Met Glu Ala Cys Ile Ser Val Leu Pro Thr Val Ser Gly  
260 265 270  
Asn Thr Asp Ile Gln Val Glu Ile Ala Leu Ala Met Gln Pro Leu Arg  
275 280 285  
Ser Glu Asn Ala Gln Leu Arg Arg Gln Leu Arg Ile Leu Asn Gln Gln  
290 295 300  
Leu Arg Glu Gln Gln Lys Thr Gln Lys Pro Ser Gly Ala Val Asp Cys  
305 310 315 320  
Asn Leu Glu Leu Phe Ser Leu Gln Ser Leu Asn Met Ser Leu Gln Asn  
325 330 335  
Gln Leu Glu Glu Ser Leu Lys Ser Gln Glu Leu Leu Gln Ser Lys Asn  
340 345 350  
Glu Glu Leu Leu Lys Val Ile Glu Asn Gln Lys Asp Glu Asn Lys Lys  
355 360 365  
Ile

&lt;210&gt; 4170

&lt;211&gt; 106

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4170

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Met Pro Gln Ser Arg Arg Gln Trp Asp Phe Glu Gly Gly Lys Gly Arg
  1             5             10             15
Arg Gln Ala Gly His Ala Leu Arg Gly Ala Arg Thr His Leu Leu His
      20             25             30
Pro His Val Phe Arg Ala Leu Ser Leu Trp Glu Ala Phe Phe Arg Thr
      35             40             45
Ala Leu Val Asn Trp Lys Arg Asn Pro Ser Pro Trp Trp Pro Cys Ser
      50             55             60
Asp Leu Asp Leu Ser Glu Val Thr Leu Pro Leu Arg Ala Leu Gln Ser
      65             70             75             80
Leu Leu Ala Gly Gly Gly Thr Ser Pro Ser His Ser His Phe Leu Thr
      85             90             95
Leu Ser Leu Cys Ile Thr Gly Ser Leu Leu
      100             105

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<210> 4171

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4171

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Met Asn Glu Pro Leu Asp Tyr Leu Ala Asn Ala Ser Asp Phe Pro Asp
  1             5             10             15
Tyr Ala Ala Ala Phe Gly Asn Cys Thr Asp Glu Asn Ile Pro Leu Lys
      20             25             30

```

Met His Tyr Leu Pro Val Ile Tyr Gly Ile Ile Phe Leu Val Gly Phe  
35 40 45  
Pro Gly Asn Ala Val Val Ile Ser Thr Tyr Ile Phe Lys Met Arg Pro  
50 55 60  
Trp Lys Ser Ser Thr Ile Ile Met Leu Asn Leu Ala Cys Thr Asp Leu  
65 70 75 80  
Leu Tyr Leu Thr Ser Leu Pro Phe Leu Ile His Tyr Tyr Ala Ser Gly  
85 90 95  
Glu Asn Trp Ile Phe Gly Asp Phe Met Cys Lys Phe Ile Arg Phe Ser  
100 105 110  
Phe His Phe Asn Leu Tyr Ser Ser Ile Leu Phe Leu Thr Cys Phe Ser  
115 120 125  
Ile Phe Arg Tyr Cys Val Ile Ile His Pro Met Ser Cys Phe Ser Ile  
130 135 140  
His Lys Thr Arg Cys Ala Val Val Ala Cys Ala Val Val Trp Ile Ile  
145 150 155 160  
Ser Leu Val Ala Val Ile Pro Met Thr Phe Leu Ile Thr Ser Thr Asn  
165 170 175  
Arg Thr Asn Arg Ser Ala Cys Leu Asp Leu Thr Ser Ser Asp Glu Leu  
180 185 190  
Asn Thr Ile Lys Trp Tyr Asn Leu Ile Leu Thr Ala Thr Thr Phe Cys  
195 200 205  
Leu Pro Leu Val Ile Val Thr Leu Cys Tyr Thr Thr Ile Ile His Thr  
210 215 220  
Leu Thr His Gly Leu Gln Thr Asp Ser Cys Leu Lys Gln Lys Ala Arg  
225 230 235 240  
Arg Leu Thr Ile Leu Leu Leu Leu Ala Phe Tyr Val Cys Phe Leu Pro  
245 250 255  
Phe His Ile Leu Arg Val Ile Arg Ile Glu Ser Arg Leu Leu Ser Ile

260 265 270  
 Ser Cys Ser Ile Glu Asn Gln Ile His Glu Ala Tyr Ile Val Ser Arg  
 275 280 285  
 Pro Leu Ala Ala Leu Asn Thr Phe Gly Asn Leu Leu Leu Tyr Val Val  
 290 295 300  
 Val Ser Asp Asn Phe Gln Gln Ala Val Cys Ser Thr Val Arg Cys Lys  
 305 310 315 320  
 Val Ser Gly Asn Leu Glu Gln Ala Lys Lys Ile Ser Tyr Ser Asn Asn  
 325 330 335  
 Pro

<210> 4172

<211> 595

<212> PRT

<213> Homo sapiens

<400> 4172

Met Ser Arg His Glu Ile Gln Gly Lys Lys Met Ala Tyr Gln Lys Val  
 1 5 10 15  
 His Ala Asp Gln Arg Ala Pro Gly His Ser Gln Tyr Leu Asp Asn Asp  
 20 25 30  
 Asp Leu Gln Ala Thr Ala Leu Asp Leu Glu Trp Asp Met Glu Lys Glu  
 35 40 45  
 Leu Glu Glu Ser Gly Phe Asp Gln Phe Gln Leu Asp Ser Ala Glu Asn  
 50 55 60  
 Gln Asn Leu Gly His Ser Glu Thr Ile Asp Leu Asn Leu Asp Ser Ile  
 65 70 75 80



Gln Pro Ala Thr Ser Pro Lys Gly Arg Phe Gln Arg Leu Gln Glu Glu  
                             85                            90                            95  
 Ser Asp Tyr Ile Thr His Tyr Thr Arg Ser Ala Pro Lys Ser Asn Arg  
                             100                            105                            110  
 Cys Asn Phe Cys His Val Leu Lys Met Leu Cys Thr Ala Thr Ile Leu  
                             115                            120                            125  
 Phe Ile Phe Gly Ile Leu Ile Gly Tyr Tyr Val His Thr Asn Cys Pro  
                             130                            135                            140  
 Ser Asp Ala Pro Ser Ser Gly Thr Val Asp Pro Gln Leu Tyr Gln Glu  
 145                            150                            155                            160  
 Ile Leu Lys Thr Ile Gln Ala Glu Asp Ile Lys Lys Ser Phe Arg Asn  
                             165                            170                            175  
 Leu Val Gln Leu Tyr Lys Asn Glu Asp Asp Thr Glu Ile Ser Lys Lys  
                             180                            185                            190  
 Ile Lys Thr Gln Trp Thr Ser Leu Gly Leu Glu Asp Val Gln Phe Val  
                             195                            200                            205  
 Asn Tyr Ser Val Leu Leu Asp Leu Pro Gly Pro Ser Pro Ser Thr Val  
                             210                            215                            220  
 Thr Leu Ser Ser Ser Gly Gln Cys Phe His Pro Asn Gly Gln Pro Cys  
 225                            230                            235                            240  
 Ser Glu Glu Ala Arg Lys Asp Ser Ser Gln Asp Leu Leu Tyr Ser Tyr  
                             245                            250                            255  
 Ala Ala Tyr Ser Ala Lys Gly Thr Leu Lys Ala Glu Val Ile Asp Val  
                             260                            265                            270  
 Ser Tyr Gly Met Ala Asp Asp Leu Lys Arg Ile Arg Lys Ile Lys Asn  
                             275                            280                            285  
 Val Thr Asn Gln Ile Ala Leu Leu Lys Leu Gly Lys Leu Pro Leu Leu  
                             290                            295                            300  
 Tyr Lys Leu Ser Ser Leu Glu Lys Ala Gly Phe Gly Gly Val Leu Leu

305                      310                      315                      320  
Tyr Ile Asp Pro Cys Asp Leu Pro Lys Thr Val Asn Pro Ser His Asp  
                         325                      330                      335  
Thr Phe Met Val Ser Leu Asn Pro Gly Gly Asp Pro Ser Thr Pro Gly  
                         340                      345                      350  
Tyr Pro Ser Val Asp Glu Ser Phe Arg Gln Ser Arg Ser Asn Leu Thr  
                         355                      360                      365  
Ser Leu Leu Val Gln Pro Ile Ser Ala Ser Leu Val Ala Lys Leu Ile  
                         370                      375                      380  
Ser Ser Pro Lys Ala Arg Thr Lys Asn Glu Ala Cys Ser Ser Leu Glu  
385                      390                      395                      400  
Leu Pro Asn Asn Glu Ile Arg Val Val Ser Met Gln Val Gln Thr Val  
                         405                      410                      415  
Thr Lys Leu Lys Thr Val Thr Asn Val Val Gly Phe Val Met Gly Leu  
                         420                      425                      430  
Thr Ser Pro Asp Arg Tyr Ile Ile Val Gly Ser His His His Thr Ala  
                         435                      440                      445  
His Ser Tyr Asn Gly Gln Glu Trp Ala Ser Ser Thr Ala Ile Ile Thr  
                         450                      455                      460  
Ala Phe Ile Arg Ala Leu Met Ser Lys Val Lys Arg Gly Trp Arg Pro  
465                      470                      475                      480  
Asp Arg Thr Ile Val Phe Cys Ser Trp Gly Gly Thr Ala Phe Gly Asn  
                         485                      490                      495  
Ile Gly Ser Tyr Glu Arg Gly Glu Asp Phe Lys Lys Val Leu Gln Lys  
                         500                      505                      510  
Asn Val Val Ala Tyr Ile Ser Leu His Ser Pro Ile Arg Gly Asn Ser  
                         515                      520                      525  
Ser Leu Tyr Pro Val Ala Ser Pro Ser Leu Gln Gln Leu Val Val Glu  
                         530                      535                      540

Lys Asn Asn Phe Asn Cys Thr Arg Arg Ala Gln Cys Pro Glu Thr Asn  
 545                      550                      555                      560  
 Ile Ser Ser Ile Gln Ile Gln Gly Asp Ala Asp Tyr Phe Ile Asn His  
                          565                      570                      575  
 Leu Gly Val Pro Ile Val Gln Phe Ala Tyr Glu Asp Ile Lys Thr Leu  
                          580                      585                      590  
 Glu Ala Glu  
                          595

<210> 4173

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4173

Met Ala Lys Ala Pro Phe Tyr His Leu Leu Phe Cys Phe Gly Ile Trp  
 1                      5                      10                      15  
 Ser Asp Ser Tyr Ser Ser Leu Gly Leu Ala Gln Trp Arg Asn Trp Cys  
                          20                      25                      30  
 Ser Tyr Cys Thr Gly Leu Cys Thr Pro Cys Asn Cys Asp Val Tyr Asp  
                          35                      40                      45  
 Cys Ser Ser Cys Phe Pro Ile Leu His Phe Gln Ser Pro Arg Ala Val  
                          50                      55                      60  
 Leu Ser Arg Thr Thr Lys Leu Pro Arg Ile Lys Pro Pro Asn Met Ala  
 65                      70                      75                      80  
 Tyr Pro Cys Ser Ser Asp Val Ile Leu Val Ala Ser Val Asn Ser Val  
                          85                      90                      95  
 Cys His Ala Val Gln Thr

100

&lt;210&gt; 4174

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4174

Met	Ile	Ile	Pro	Gly	Lys	Gly	Phe	Leu	Val	Leu	Cys	Asn	Pro	Lys	Gly
1					5				10					15	
Arg	Asn	Ser	Pro	Met	Gly	Gly	Arg	Ile	Leu	Leu	Gly	Met	Lys	Lys	Phe
				20				25					30		
Leu	Phe	Pro	Cys	His	Glu	Cys	Pro	Ala	Arg	Glu	Gln	Gly	Gly	Ser	Val
				35				40					45		
Arg	Glu	Gly	Leu	Ser	Ser	Trp	Arg	Lys	Trp	Asp	Ser	Lys	Ser	Arg	Met
				50				55					60		
Leu	Arg	Leu	Ser	Gly	Ser	Gln	Arg	Gly	Gly	Ser	Lys	Cys	Gly	Met	Trp
				65				70					75		80
Val	Ala	Leu	Trp	Phe	Ser	Gly	Ser	Val	Val	Val	Pro	Ser	Thr	Ala	Asp
								85					90		95
Phe	Met	Thr	Pro	His	Leu	Ser	Pro	Ser	His	Ile	Val	Tyr	Pro	Ser	Val
													100		105
															110

&lt;210&gt; 4175

&lt;211&gt; 712

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4175

Met	Pro	Asp	Gln	Asp	Lys	Lys	Val	Lys	Thr	Thr	Glu	Lys	Ser	Thr	Asp
1				5					10					15	
Lys	Gln	Gln	Glu	Ile	Thr	Ile	Arg	Asp	Tyr	Ser	Asp	Leu	Lys	Arg	Leu
			20					25					30		
Arg	Cys	Leu	Leu	Asn	Val	Gln	Ser	Ser	Lys	Gln	Gln	Leu	Pro	Ala	Ile
		35					40						45		
Asn	Phe	Asp	Ser	Ala	Gln	Asn	Ser	Met	Thr	Lys	Ser	Glu	Pro	Ala	Ile
	50					55					60				
Arg	Ala	Gly	Gly	His	Arg	Ala	Arg	Gly	Gln	Trp	His	Glu	Ser	Thr	Glu
65					70					75				80	
Ala	Val	Glu	Leu	Glu	Asn	Phe	Ser	Ile	Asn	Tyr	Lys	Asn	Glu	Arg	Asn
				85					90					95	
Phe	Ser	Lys	His	Pro	Gln	Arg	Lys	Leu	Phe	Gln	Glu	Ile	Phe	Thr	Ala
		100						105						110	
Leu	Val	Lys	Asn	Arg	Leu	Ile	Ser	Arg	Glu	Trp	Val	Asn	Arg	Ala	Pro
		115						120						125	
Ser	Ile	His	Phe	Leu	Arg	Val	Leu	Ile	Cys	Leu	Arg	Leu	Leu	Met	Arg
	130						135						140		
Asp	Pro	Cys	Tyr	Gln	Glu	Ile	Leu	His	Ser	Leu	Gly	Gly	Ile	Glu	Asn
145					150					155				160	
Leu	Ala	Gln	Tyr	Met	Glu	Ile	Val	Ala	Asn	Glu	Tyr	Leu	Gly	Tyr	Gly
				165					170					175	
Glu	Glu	Gln	His	Thr	Val	Asp	Lys	Leu	Val	Asn	Met	Thr	Tyr	Ile	Phe
		180						185						190	
Gln	Lys	Leu	Ala	Ala	Val	Lys	Asp	Gln	Arg	Glu	Trp	Val	Thr	Thr	Ser
		195						200						205	
Gly	Ala	His	Lys	Thr	Leu	Val	Asn	Leu	Leu	Gly	Ala	Arg	Asp	Thr	Asn

210 215 220  
Val Leu Leu Gly Ser Leu Leu Ala Leu Ala Ser Leu Ala Glu Ser Gln  
225 230 235 240  
Glu Cys Arg Glu Lys Ile Ser Glu Leu Asn Ile Val Glu Asn Leu Leu  
245 250 255  
Met Ile Leu His Glu Tyr Asp Leu Leu Ser Lys Arg Leu Thr Ala Glu  
260 265 270  
Leu Leu Arg Leu Leu Cys Ala Glu Pro Gln Val Lys Glu Gln Val Lys  
275 280 285  
Leu Tyr Glu Gly Ile Pro Val Leu Leu Ser Leu Leu His Ser Asp His  
290 295 300  
Leu Lys Leu Leu Trp Ser Ile Val Trp Ile Leu Val Gln Val Cys Glu  
305 310 315 320  
Asp Pro Glu Thr Ser Val Glu Ile Arg Ile Trp Gly Gly Ile Lys Gln  
325 330 335  
Leu Leu His Ile Leu Gln Gly Asp Arg Asn Phe Val Ser Asp His Ser  
340 345 350  
Ser Ile Gly Ser Leu Ser Ser Ala Asn Ala Ala Gly Arg Ile Gln Gln  
355 360 365  
Leu His Leu Ser Glu Asp Leu Ser Pro Arg Glu Ile Gln Glu Asn Thr  
370 375 380  
Phe Ser Leu Gln Ala Ala Cys Cys Ala Ala Leu Thr Glu Leu Val Leu  
385 390 395 400  
Asn Asp Thr Asn Ala His Gln Val Val Gln Glu Asn Gly Val Tyr Thr  
405 410 415  
Ile Ala Lys Leu Ile Leu Pro Asn Lys Gln Lys Asn Ala Ala Lys Ser  
420 425 430  
Asn Leu Leu Gln Cys Tyr Ala Phe Arg Ala Leu Arg Phe Leu Phe Ser  
435 440 445

Met Glu Arg Asn Arg Pro Leu Phe Lys Arg Leu Phe Pro Thr Asp Leu  
450 455 460  
Phe Glu Ile Phe Ile Asp Ile Gly His Tyr Val Arg Asp Ile Ser Ala  
465 470 475 480  
Tyr Glu Glu Leu Val Ser Lys Leu Asn Leu Leu Val Glu Asp Glu Leu  
485 490 495  
Lys Gln Ile Ala Glu Asn Ile Glu Ser Ile Asn Gln Asn Lys Ala Pro  
500 505 510  
Leu Lys Tyr Ile Gly Asn Tyr Ala Ile Leu Asp His Leu Gly Ser Gly  
515 520 525  
Ala Phe Gly Cys Val Tyr Lys Val Arg Lys His Ser Gly Gln Asn Leu  
530 535 540  
Leu Ala Met Lys Glu Val Asn Leu His Asn Pro Ala Phe Gly Lys Asp  
545 550 555 560  
Lys Lys Asp Arg Asp Ser Ser Val Arg Asn Ile Val Ser Glu Leu Thr  
565 570 575  
Ile Ile Lys Glu Gln Leu Tyr His Pro Asn Ile Val Arg Tyr Tyr Lys  
580 585 590  
Thr Phe Leu Glu Asn Asp Arg Leu Tyr Ile Val Met Glu Leu Ile Glu  
595 600 605  
Gly Ala Pro Leu Gly Glu His Phe Ser Ser Leu Lys Glu Lys His His  
610 615 620  
His Phe Thr Glu Glu Arg Leu Trp Lys Ile Phe Ile Gln Leu Cys Leu  
625 630 635 640  
Ala Leu Arg Tyr Leu His Lys Glu Lys Arg Ile Val His Arg Asp Leu  
645 650 655  
Thr Pro Asn Asn Ile Met Leu Gly Asp Lys Asp Lys Val Thr Val Thr  
660 665 670  
Asp Phe Gly Leu Ala Lys Gln Lys Gln Glu Asn Ser Lys Leu Thr Ser

675                      680                      685  
 Val Val Gly Thr Ile Leu Tyr Ser Cys Val Gln His Leu Tyr Leu Arg  
 690                      695                      700  
 Ser Pro Ala Pro Ala Leu Ala Thr  
 705                      710

<210> 4176

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4176

Met Ser Arg Leu Gly Pro Pro Ala Arg Ile Leu Pro Ser Met Pro Trp  
 1                      5                      10                      15  
 Lys Met Thr Cys Ser Trp Leu Tyr Val Phe Pro Leu Asn Thr Asp Cys  
 20                      25                      30  
 Thr Ser Glu Leu Thr Glu Ala Leu Thr Pro Ser Arg Arg Ser Pro Ala  
 35                      40                      45  
 Ala Gly Trp Gly His Gly Gly Ala Val Pro His Phe Leu Arg Ala Pro  
 50                      55                      60  
 Pro Pro His Gln Gly Leu Leu Pro Cys His Gly Gly Val Pro Leu Pro  
 65                      70                      75                      80  
 Ser Ser Ser Pro Thr Gly Val Pro Ser Ser Pro Ala Thr Ser Leu Val  
 85                      90                      95  
 Ser Gly Cys Pro His Pro Gly His Ser Gly Gly Glu Gly Val Gly Gly  
 100                      105                      110  
 Gly Trp Glu Pro Arg  
 115



&lt;210&gt; 4177

&lt;211&gt; 457

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4177

Met Ser Asp Ala Asn Lys Ala Ala Ile Ala Ala Glu Arg Glu Ala Leu

1 5 10 15

Asn Leu Lys Leu Pro Pro Ile Val His Leu Pro Glu Asn Ile Gly Ala

20 25 30

Asp Thr Pro Thr Gln Ser Lys Leu Leu Lys Tyr Arg Arg Ser Lys Glu

35 40 45

Gln Gln Gln Lys Ile Asn Gln Leu Val Ile Asp Gly Ala Lys Arg Asn

50 55 60

Leu Asp Arg Thr Leu Gly Lys Arg Thr Pro Leu Leu Pro Pro Pro Asp

65 70 75 80

Tyr Pro Gln Thr Met Thr Ser Glu Met Lys Lys Lys Gly Phe Asn Tyr

85 90 95

Ile Tyr Met Lys Gln Cys Val Glu Ser Ser Pro Leu Val Pro Ile Gln

100 105 110

Gln Glu Trp Leu Asp His Met Leu Arg Leu Ile Pro Glu Ser Leu Lys

115 120 125

Glu Gly Lys Glu Arg Glu Glu Leu Leu Glu Ser Leu Ile Asn Glu Val

130 135 140

Ser Ser Asp Phe Glu Asn Ser Met Lys Arg Tyr Leu Val Gln Ser Val

145 150 155 160

Leu Val Lys Pro Pro Val Lys Ser Leu Glu Asp Glu Gly Gly Pro Leu

165	170	175
Pro Glu Ser Pro Val Gly Leu Asp Tyr Ser Asn Pro Trp His Ser Ser		
180	185	190
Tyr Val Gln Ala Arg Asn Gln Ile Phe Ser Asn Leu His Ile Ile His		
195	200	205
Pro Thr Met Lys Met Leu Leu Asp Leu Gly Tyr Thr Thr Phe Ala Asp		
210	215	220
Thr Val Leu Leu Asp Phe Thr Gly Ile Arg Ala Lys Gly Pro Ile Asp		
225	230	235
240		
Cys Glu Ser Leu Lys Thr Asp Leu Ser Ile Gln Thr Arg Asn Ala Glu		
245	250	255
Glu Lys Ile Met Asn Thr Trp Tyr Pro Lys Val Ile Asn Leu Phe Thr		
260	265	270
Lys Lys Glu Ala Leu Glu Gly Val Lys Pro Glu Lys Leu Asp Ala Phe		
275	280	285
Tyr Ser Cys Val Ser Thr Leu Met Ser Asn Gln Leu Lys Asp Leu Leu		
290	295	300
Arg Arg Thr Val Glu Gly Phe Val Lys Leu Phe Asp Pro Lys Asp Gln		
305	310	315
320		
Gln Arg Leu Pro Ile Phe Lys Ile Glu Leu Thr Phe Asp Asp Asp Lys		
325	330	335
Met Glu Phe Tyr Pro Thr Phe Gln Asp Leu Glu Asp Asn Val Leu Ser		
340	345	350
Leu Val Glu Arg Ile Ala Glu Ala Leu Gln Asn Val Gln Thr Ile Pro		
355	360	365
Ser Trp Leu Ser Gly Thr Ser Thr Pro Val Asn Leu Asp Thr Glu Leu		
370	375	380
Pro Glu His Val Leu His Trp Ala Val Asp Thr Leu Lys Ala Ala Val		
385	390	395
400		

His Arg Asn Leu Glu Gly Ala Arg Lys His Tyr Glu Thr Tyr Val Glu  
                             405                            410                            415  
 Lys Tyr Asn Trp Leu Leu Asp Gly Thr Ala Val Glu Asn Ile Glu Thr  
                             420                            425                            430  
 Phe Gln Thr Glu Asp His Thr Phe Asp Glu Tyr Thr Glu Glu Leu Asp  
                             435                            440                            445  
 Cys Trp Val Val Trp Glu Val Tyr Phe  
                             450                            455

<210> 4178

<211> 190

<212> PRT

<213> Homo sapiens

<400> 4178

Met Leu Phe Tyr Leu Ser Gly Thr Tyr Tyr Ala Leu Tyr Phe Leu Ala  
     1                            5                            10                            15  
 Thr Leu Leu Met Ile Thr Tyr Lys Ser Gln Val Phe Ser Tyr Pro His  
                             20                            25                            30  
 Arg Tyr Leu Val Leu Asp Leu Ala Leu Leu Phe Leu Met Gly Ile Leu  
                             35                            40                            45  
 Glu Ala Val Arg Leu Tyr Leu Gly Thr Arg Gly Asn Leu Thr Glu Ala  
                             50                            55                            60  
 Glu Arg Pro Leu Ala Ala Ser Leu Ala Leu Thr Ala Gly Thr Ala Leu  
     65                            70                            75                            80  
 Leu Ser Ala His Phe Leu Leu Trp Gln Ala Leu Val Leu Trp Ala Asp  
                             85                            90                            95  
 Trp Ala Leu Ser Ala Thr Leu Leu Ala Leu His Gly Leu Glu Ala Val

100	105	110	
Leu Gln Val Val Ala Ile Ala Ala Phe Thr Ser His Thr Ser Pro Phe			
115	120	125	
Arg Gly Phe Gly Gly Glu Val Arg Ala Lys Ala Gly Asp Glu Thr Ala			
130	135	140	
Gly Glu Arg Ala Ala Glu Gly His Ile Arg Ser Leu Arg Pro Leu Gln			
145	150	155	160
Phe Tyr Gln Leu Leu Pro Phe Ala Arg Ser Ala Lys Gln Ile Leu Ala			
165	170	175	
Leu Cys Phe Phe Pro Ile Pro Arg Phe Thr Ile Ser Ser Pro			
180	185	190	

&lt;210&gt; 4179

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4179

Met Asn Leu Ala Cys Gly Glu Asp Val Ser Thr Asn Gly Gln Leu Gly
1 5 10 15
Pro Lys Glu Asp Thr Gly Ser Asn Thr Glu Thr Asn Gln Ile Leu Pro
20 25 30
Arg Pro Ser Cys Tyr Gln Thr Thr Leu Val Gln Gly Trp Leu Leu Cys
35 40 45
Thr Gly Gln Ser His Pro Ile Pro Thr Gln Ala Leu Cys Pro Ala Thr
50 55 60
Leu Ala Ser Ser Trp Pro Ser His Gln Ala Lys Gln Gly Arg Gly Met
65 70 75 80

<210> 4180

<211> 783

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4180

出証特 2 0 0 4 - 3 0 5 9 6 6 0

20	25	30
Thr Val Glu Ser Leu Cys Asp Asp Val Val Ser Val Leu Thr Val Leu		
35	40	45
Cys Glu Lys Leu Gln Ala Ala Ile Asn Asp Ser Gln Gln Leu Gln Leu		
50	55	60
Leu Tyr Leu Glu Cys Ile Leu Ser Val Leu Ser Ser Ser Ser Ser Ser		
65	70	75
Met His Leu His Arg Arg Phe Thr Asp Leu Ile Trp Lys Asn Leu Cys		
85	90	95
Pro Ala Leu Ile Val Ile Leu Gly Asn Pro Ile His Asp Lys Thr Ile		
100	105	110
Thr Ser Ala His Thr Ser Ser Thr Ser Thr Ser Leu Glu Ser Asp Ser		
115	120	125
Ala Ser Pro Gly Val Ser Asp His Gly Arg Gly Ser Gly Cys Ser Cys		
130	135	140
Thr Ala Pro Ala Leu Ser Gly Pro Val Ala Arg Thr Ile Tyr Tyr Ile		
145	150	155
Ala Ala Glu Leu Val Arg Leu Val Gly Ser Val Asp Ser Met Lys Pro		
165	170	175
Val Leu Gln Ser Leu Tyr His Arg Val Leu Leu Tyr Pro Pro Pro Gln		
180	185	190
His Arg Val Glu Ala Ile Lys Ile Met Lys Glu Ile Leu Gly Ser Pro		
195	200	205
Gln Arg Leu Cys Asp Leu Ala Gly Pro Ser Ser Thr Glu Ser Glu Ser		
210	215	220
Arg Lys Arg Ser Ile Ser Lys Arg Lys Ser His Leu Asp Leu Leu Lys		
225	230	235
Leu Ile Met Asp Gly Met Thr Glu Ala Cys Ile Lys Gly Gly Ile Glu		
245	250	255

Ala Cys Tyr Ala Ala Val Ser Cys Val Cys Thr Leu Leu Gly Ala Leu  
260 265 270  
Asp Glu Leu Ser Gln Gly Lys Gly Leu Ser Glu Gly Gln Val Gln Leu  
275 280 285  
Leu Leu Leu Arg Leu Glu Glu Leu Lys Asp Gly Ala Glu Trp Ser Arg  
290 295 300  
Asp Ser Met Glu Ile Asn Glu Ala Asp Phe Arg Trp Gln Arg Arg Val  
305 310 315 320  
Leu Ser Ser Glu His Thr Pro Trp Glu Ser Gly Asn Glu Arg Ser Leu  
325 330 335  
Asp Ile Ser Ile Ser Val Thr Thr Asp Thr Gly Gln Thr Thr Leu Glu  
340 345 350  
Gly Glu Leu Gly Gln Thr Thr Pro Glu Asp His Ser Gly Asn His Lys  
355 360 365  
Asn Ser Leu Lys Ser Pro Ala Ile Pro Glu Gly Lys Glu Thr Leu Ser  
370 375 380  
Lys Val Leu Glu Thr Glu Ala Val Asp Gln Pro Asp Val Val Gln Arg  
385 390 395 400  
Ser His Thr Val Pro Tyr Pro Asp Ile Thr Asn Phe Leu Ser Val Asp  
405 410 415  
Cys Arg Thr Arg Ser Tyr Gly Ser Arg Tyr Ser Glu Ser Asn Phe Ser  
420 425 430  
Val Asp Asp Gln Asp Leu Ser Arg Thr Glu Phe Asp Ser Cys Asp Gln  
435 440 445  
Tyr Ser Met Ala Ala Glu Lys Asp Ser Gly Arg Ser Asp Val Ser Asp  
450 455 460  
Ile Gly Ser Asp Asn Cys Ser Leu Ala Asp Glu Glu Gln Thr Pro Arg  
465 470 475 480  
Asp Cys Leu Gly His Arg Ser Leu Arg Thr Ala Ala Leu Ser Leu Lys

485	490	495
Leu Leu Lys Asn Gln Glu Ala Asp Gln His Ser Ala Arg Leu Phe Ile		
500	505	510
Gln Ser Leu Glu Gly Leu Leu Pro Arg Leu Leu Ser Leu Ser Asn Val		
515	520	525
Glu Glu Val Asp Thr Ala Leu Gln Asn Phe Ala Ser Thr Phe Cys Ser		
530	535	540
Gly Met Met His Ser Pro Gly Phe Asp Gly Asn Ser Ser Leu Ser Phe		
545	550	555
Gln Met Leu Met Asn Ala Asp Ser Leu Tyr Thr Ala Ala His Cys Ala		
565	570	575
Leu Leu Leu Asn Leu Lys Leu Ser His Gly Asp Tyr Tyr Arg Lys Arg		
580	585	590
Pro Thr Leu Ala Pro Gly Val Met Lys Asp Phe Met Lys Gln Val Gln		
595	600	605
Thr Ser Gly Val Leu Met Val Phe Ser Gln Ala Trp Ile Glu Glu Leu		
610	615	620
Tyr His Gln Val Leu Asp Arg Asn Met Leu Gly Glu Ala Gly Tyr Trp		
625	630	635
Gly Ser Pro Glu Asp Asn Ser Leu Pro Leu Ile Thr Met Leu Thr Asp		
645	650	655
Ile Asp Gly Leu Glu Ser Ser Ala Ile Gly Gly Gln Leu Met Ala Ser		
660	665	670
Ala Ala Thr Glu Ser Pro Phe Ala Gln Ser Arg Arg Ile Asp Asp Ser		
675	680	685
Thr Val Ala Gly Val Ala Phe Ala Arg Tyr Ile Leu Val Gly Cys Trp		
690	695	700
Lys Asn Leu Ile Asp Thr Leu Ser Thr Pro Leu Thr Gly Arg Met Ala		
705	710	715
		720



Gly Ser Ser Lys Glu Leu Ala Phe Ile Leu Gly Ala Glu Gly Ile Lys  
                     725                    730                    735  
 Glu Gln Asn Gln Lys Glu Arg Asp Ala Ile Cys Met Ser Leu Asp Gly  
                     740                    745                    750  
 Leu Arg Lys Ala Ala Arg Leu Ser Cys Ala Leu Gly Val Ala Ala Asn  
                     755                    760                    765  
 Cys Ala Ser Ala Leu Ala Gln Met Ala Ala Ala Ser Cys Val Gln  
                     770                    775                    780

<210> 4181

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4181

Met Thr Asp Arg Asp Ala Gln Trp Arg Pro Leu Ser Arg Pro Leu Gly  
     1                    5                    10                    15  
 Thr Arg Pro His Ala Pro Leu Ala Pro Ala Cys Val Arg Arg Pro Trp  
                     20                    25                    30  
 Ala Gly Lys Ala Pro Gly Ser Val Ser Ser Val Ser Ser Gln Leu Pro  
                     35                    40                    45  
 Ala Leu Gln Pro Pro Arg Leu Leu Val Ile Phe Cys Phe Lys Val Ala  
                     50                    55                    60  
 Phe Cys Val Phe Phe Ser His Phe Ser Ser Ser Ser Ser Ser Cys His  
                     65                    70                    75                    80  
 Ile Tyr Phe Pro Pro Asn Thr Cys Pro Leu Asn Ser Ile Asp Ala Ile  
                     85                    90                    95  
 Leu Ser Leu Lys Lys Cys Tyr Ser His Thr Asp Ser Val Trp Ser Leu

100 105 110  
Gln Leu Asp  
115

<210> 4182

<211> 497

<212> PRT

<213> Homo sapiens

<400> 4182

Met Glu Ser Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly  
1 5 10 15  
Val Gln Cys Gln Phe Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln  
20 25 30  
Ser Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Tyr Gly Phe Met Leu  
35 40 45  
Arg Thr Asn Leu Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
50 55 60  
Glu Trp Leu Ala Val Ser Ser Tyr Asp Gly His Thr Asp His Tyr Ala  
65 70 75 80  
Asp Ser Val Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Met Asn  
85 90 95  
Arg Leu Tyr Leu Gln Met Arg Asn Leu Arg Pro Asp Asp Thr Ala Met  
100 105 110  
Tyr His Cys Ala Arg Val Gly Tyr Asp Asp Asn Thr Val Arg Asp Leu  
115 120 125  
Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser  
130 135 140

Ala Ser Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr  
145 150 155 160  
Gln Pro Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe  
165 170 175  
Pro Gln Glu Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val  
180 185 190  
Thr Ala Arg Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr  
195 200 205  
Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly  
210 215 220  
Lys Ser Val Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp  
225 230 235 240  
Val Thr Val Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro  
245 250 255  
Ser Thr Pro Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser  
260 265 270  
Leu His Arg Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn  
275 280 285  
Leu Thr Cys Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe  
290 295 300  
Thr Trp Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Asp  
305 310 315 320  
Arg Asp Leu Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys  
325 330 335  
Ala Glu Pro Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr  
340 345 350  
Pro Glu Ser Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn  
355 360 365  
Thr Phe Arg Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu

370                      375                      380  
 Ala Leu Asn Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser  
 385                      390                      395                      400  
 Pro Lys Asp Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro  
                          405                      410                      415  
 Arg Glu Lys Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly  
                          420                      425                      430  
 Thr Thr Thr Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp  
                          435                      440                      445  
 Trp Lys Lys Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu  
                          450                      455                      460  
 Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro  
 465                      470                      475                      480  
 Thr His Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys  
                          485                      490                      495  
 Tyr

<210> 4183

<211> 568

<212> PRT

<213> Homo sapiens

<400> 4183

Met Glu His Leu Trp Phe Phe Leu Leu Leu Leu Val Ala Pro Pro Arg  
   1                      5                      10                      15  
 Arg Val Leu Ser Gln Val Arg Leu Lys Glu Trp Gly Ala Lys Thr Trp  
                          20                      25                      30

Lys Pro Ser Glu Thr Leu Ser Leu Val Cys Arg Val Asp Gly Gly Pro  
 35 40 45  
 Phe Asn Leu Tyr Ser Trp Ser Trp Ile Arg Gln Gly Ser Gly Lys Gly  
 50 55 60  
 Leu Glu Trp Leu Gly Glu Ile Thr Pro Gly Gly Pro Thr His Ser Asn  
 65 70 75 80  
 Pro Ser Leu Ala Ser Arg Val Val Leu Ser Val Asp Thr Ser Lys Asn  
 85 90 95  
 His Val Ser Leu Lys Leu Leu Ser Leu Thr Val Ala Asp Thr Ala Val  
 100 105 110  
 Tyr Phe Cys Ala Ala Arg Asn Pro Ser Ala Gly Ala Ala Glu Tyr Trp  
 115 120 125  
 Gly Pro Gly Ser Pro Val Ile Val Ser Ser Ala Pro Thr Lys Ala Pro  
 130 135 140  
 Asp Val Phe Pro Ile Ile Ser Gly Cys Arg His Pro Lys Asp Asn Ser  
 145 150 155 160  
 Pro Val Val Leu Ala Cys Leu Ile Thr Gly Tyr His Pro Thr Ser Val  
 165 170 175  
 Thr Val Thr Trp Tyr Met Gly Thr Gln Ser Gln Pro Gln Arg Thr Phe  
 180 185 190  
 Pro Glu Ile Gln Arg Arg Asp Ser Tyr Tyr Met Thr Ser Ser Gln Leu  
 195 200 205  
 Ser Thr Pro Leu Gln Gln Trp Arg Gln Gly Glu Tyr Lys Cys Val Val  
 210 215 220  
 Gln His Thr Ala Ser Lys Ser Lys Lys Glu Ile Phe Arg Trp Pro Glu  
 225 230 235 240  
 Ser Pro Lys Ala Gln Ala Ser Ser Val Pro Thr Ala Gln Pro Gln Ala  
 245 250 255  
 Glu Gly Ser Leu Ala Lys Ala Thr Thr Ala Pro Ala Thr Thr Arg Asn

260 265 270  
Thr Gly Arg Gly Gly Glu Glu Lys Lys Lys Glu Lys Glu Lys Glu Glu  
275 280 285  
Gln Glu Glu Arg Glu Thr Lys Thr Pro Glu Cys Pro Ser His Thr Gln  
290 295 300  
Pro Leu Gly Val Tyr Leu Leu Thr Pro Ala Val Gln Asp Leu Trp Leu  
305 310 315 320  
Arg Asp Lys Ala Thr Phe Thr Cys Phe Val Val Gly Ser Asp Leu Lys  
325 330 335  
Asp Ala His Leu Thr Trp Glu Val Ala Gly Lys Val Pro Thr Gly Gly  
340 345 350  
Val Glu Glu Gly Leu Leu Glu Arg His Ser Asn Gly Ser Gln Ser Gln  
355 360 365  
His Ser Arg Leu Thr Leu Pro Arg Ser Leu Trp Asn Ala Gly Thr Ser  
370 375 380  
Val Thr Cys Thr Leu Asn His Pro Ser Leu Pro Pro Gln Arg Leu Met  
385 390 395 400  
Ala Leu Arg Glu Pro Ala Ala Gln Ala Pro Val Lys Leu Ser Leu Asn  
405 410 415  
Leu Leu Ala Ser Ser Asp Pro Pro Glu Ala Ala Ser Trp Leu Leu Cys  
420 425 430  
Glu Val Ser Gly Phe Ser Pro Pro Asn Ile Leu Leu Met Trp Leu Glu  
435 440 445  
Asp Gln Arg Glu Val Asn Thr Ser Gly Phe Ala Pro Ala Arg Pro Pro  
450 455 460  
Pro Gln Pro Gly Ser Thr Thr Phe Trp Ala Trp Ser Val Leu Arg Val  
465 470 475 480  
Pro Ala Pro Pro Ser Pro Gln Pro Ala Thr Tyr Thr Cys Val Val Ser  
485 490 495

His Glu Asp Ser Arg Thr Leu Leu Asn Ala Ser Arg Ser Leu Glu Val

500

505

510

Ser Tyr Leu Ala Met Thr Pro Leu Ile Pro Gln Ser Lys Asp Glu Asn

515

520

525

Ser Asp Asp Tyr Ser Thr Phe Asp Asp Val Gly Ser Leu Trp Thr Thr

530

535

540

Leu Ser Thr Phe Val Ala Leu Phe Ile Leu Thr Leu Leu Tyr Ser Gly

545

550

555

560

Ile Val Thr Phe Ile Lys Val Lys

565

<210> 4184

<211> 478

<212> PRT

<213> Homo sapiens

<400> 4184

Met Asp Trp Thr Trp Thr Ile Leu Phe Leu Val Ala Gly Ala Thr Gly

1

5

10

15

Val Lys Ser Gln Ala Gln Leu Leu Gln Ser Gly Pro Glu Ala Glu Arg

20

25

30

Pro Gly Ala Ser Val Arg Val Ser Cys Arg Ala Ser Gly Tyr Asp Phe

35

40

45

Arg Thr Phe Ala Val Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu

50

55

60

Glu Trp Met Gly Trp Val Asn Thr Asp Gln Gly Asp Thr His Tyr Ala

65

70

75

80

Arg Arg Phe Gln Gly Arg Val Ser Met Thr Thr Asp Thr Ser Thr Ser

	85	90	95
Thr Ala Tyr Leu Glu Leu Arg Arg Leu Thr Phe Asp Asp Thr Ala Val			
100	105	110	
Tyr Phe Cys Ala Arg Leu Leu Leu Pro Asn Gly Arg Asn Trp Ala Gln			
115	120	125	
Trp Lys Asn Tyr Tyr Ala Phe Asp Val Trp Gly His Gly Thr Thr Val			
130	135	140	
Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala			
145	150	155	160
Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu			
165	170	175	
Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly			
180	185	190	
Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser			
195	200	205	
Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu			
210	215	220	
Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr			
225	230	235	240
Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr			
245	250	255	
Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe			
260	265	270	
Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro			
275	280	285	
Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val			
290	295	300	
Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr			
305	310	315	320



Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val

325

330

335

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys

340

345

350

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser

355

360

365

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro

370

375

380

Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val

385

390

395

400

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly

405

410

415

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp

420

425

430

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp

435

440

445

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His

450

455

460

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys

465

470

475

<210> 4185

<211> 548

<212> PRT

<213> Homo sapiens

<400> 4185

Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro

1	5	10	15
Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val			
20	25	30	
Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr			
35	40	45	
Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu			
50	55	60	
Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe			
65	70	75	80
Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr			
85	90	95	
Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile			
100	105	110	
Ser Gln Val Cys Asn Leu Gly His Leu Glu Asp Gly Ala Ala Asp Ser			
115	120	125	
Met Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu Gln Pro Ser Ser Ala			
130	135	140	
Ser Ser Leu Leu Thr Ala His Ala Ala Ser Ser Ser Leu Pro Arg Asp			
145	150	155	160
Asp Pro Asn Thr Asn Ala Val Ala Thr Glu Glu Thr Arg Ser Glu Ser			
165	170	175	
Glu Leu Leu Phe Leu Pro Asp Tyr Leu Val Leu Ser Asn Cys Glu Thr			
180	185	190	
Gly Arg Leu His His Thr Ser Leu Pro Thr Arg Cys Asp Ser Trp Ser			
195	200	205	
Asn Ser Asp Arg Ser Leu Glu Gln Ala Ser Phe Asp Asp Val Phe Val			
210	215	220	
Asp Cys Leu Gln Pro Leu Pro Ser Ser His Leu Val His Pro Ser Cys			
225	230	235	240

His Gly Ser Gly Ala Gln Glu Val Pro Ser Ser Arg Pro Gln Ala Ala  
 245 250 255  
 Leu Ile Trp Ser Arg Glu Ile Asn Gly Pro Pro Arg Asp His Leu Ser  
 260 265 270  
 Ser Ser Pro Leu Leu Glu Ser Ser Leu Ser Ser Thr Ile Gln Val Asp  
 275 280 285  
 Lys Asn Gln Gly Ser Leu Pro Cys Gly Ala Lys Glu Leu Asp Ile Met  
 290 295 300  
 Ser Asn Thr Pro Pro Pro Arg Pro Pro Lys Pro Ser His Leu Ser Glu  
 305 310 315 320  
 Arg Arg Gln Glu Glu Trp Ser Thr His Ser Gly Ser Lys Lys Pro Glu  
 325 330 335  
 Cys Thr Leu Val Pro Arg Arg Ile Ser Leu Ser Gly Leu Asp Asn Met  
 340 345 350  
 Arg Thr Trp Lys Ala Asp Val Glu Gly Gln Ser Leu Arg His Arg Asp  
 355 360 365  
 Lys Arg Leu Ser Leu Asn Leu Pro Cys Arg Phe Ser Pro Met Tyr Pro  
 370 375 380  
 Thr Ala Ser Ala Ser Ile Glu Asp Ser Tyr Val Pro Met Ser Pro Gln  
 385 390 395 400  
 Ala Gly Ala Ser Gly Leu Gly Pro His Cys Ser Pro Asp Asp Tyr Ile  
 405 410 415  
 Pro Met Asn Ser Gly Ser Ile Ser Ser Pro Leu Pro Glu Leu Pro Ala  
 420 425 430  
 Asn Leu Glu Pro Pro Pro Val Asn Arg Asp Leu Lys Pro Gln Arg Lys  
 435 440 445  
 Ser Arg Pro Pro Pro Leu Asp Leu Arg Asn Leu Ser Ile Ile Arg Glu  
 450 455 460  
 His Ala Ser Leu Thr Arg Thr Arg Thr Val Pro Cys Ser Arg Thr Ser

465                      470                      475                      480  
 Phe Leu Ser Pro Glu Arg Asn Gly Ile Asn Ser Ala Arg Phe Phe Ala  
                             485                      490                      495  
 Asn Pro Val Ser Arg Glu Asp Glu Glu Ser Tyr Ile Glu Met Lys Leu  
                             500                      505                      510  
 Leu Leu Ser Glu Glu Gln Arg Val Asp Tyr Val Gln Val Asp Glu Gln  
                             515                      520                      525  
 Lys Thr Gln Ala Leu Gln Ser Thr Lys Gln Glu Trp Thr Asp Glu Arg  
                             530                      535                      540  
 Gln Ser Lys Val  
 545

<210> 4186

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4186

Met Asn Ile Val Phe Ser Arg Asp Ser Gln Val Arg Val Met Glu Asn  
     1                      5                      10                      15  
 Thr Val Ala Asn Thr Glu Lys Tyr Phe Gly Gln Phe Cys Ser Leu Leu  
                             20                      25                      30  
 Ala Ala Tyr Thr Arg Lys Thr Ala Arg Leu Arg Asp Lys Ala Asp Gln  
                             35                      40                      45  
 Leu Val Lys Gln Leu Ile Asp Phe Ala Asn Ser Glu Asn Pro Glu Leu  
                             50                      55                      60  
 Arg Ala Thr Met Arg Gly Phe Ala Glu Asp Leu Ala Lys Val Gln Asp  
                             65                      70                      75                      80

Tyr Arg Gln Ala Gln Val Glu Arg Leu Glu Thr Lys Val Val Asn Pro  
                             85                            90                            95  
 Leu Lys Leu Tyr Gly Ala Gln Ile Lys Gln Thr Arg Ala Glu Ile Lys  
                             100                            105                            110  
 Lys Phe Lys His Val Gln Asn His Glu Ile Lys Gln Leu Glu Lys Leu  
                             115                            120                            125  
 Glu Lys Leu Arg Gln Lys Ser Pro Ser Asp Gln Gln Met Ile Ser Gln  
                             130                            135                            140  
 Ala Glu Thr Arg Val Gln Arg Ala Ala Val Asp Ser Ser Arg Thr Thr  
 145                            150                            155                            160  
 Leu Gln Leu Glu Glu Thr Val Asp Gly Phe Gln Arg Gln Lys Leu Lys  
                             165                            170                            175  
 Asp Leu Gln Lys Phe Phe Cys Asp Phe Val Thr Ile Glu Met Val Phe  
                             180                            185                            190  
 His Ala Lys Ala Val Glu Val Tyr Ser Ser Ala Phe Gln Thr Leu Glu  
                             195                            200                            205  
 Lys Tyr Asp Leu Glu Arg Asp Leu Leu Asp Phe Arg Ala Lys Met Gln  
                             210                            215                            220  
 Gly Val Tyr Gly His Tyr Asp Thr Arg Leu Leu Ala Asn Thr Ser Pro  
 225                            230                            235                            240  
 Pro Pro Ser Val Leu Gln Ser Leu Ala Ser Gln Gly Thr Leu Gln Val  
                             245                            250                            255  
 Gln Leu Ser Arg Ala Asn Glu Asp Pro Glu His Pro His Ala Asn His  
                             260                            265                            270  
 Gly Arg Phe Ser Leu Cys Glu Trp Val Val Lys Gly Gln Pro Ala His  
                             275                            280                            285  
 Cys Val Cys Gly Gln Gly Gly His Leu Met Leu Pro Gly His Ser Leu  
                             290                            295                            300

&lt;210&gt; 4187

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4187

Met Asn Ala Ala Ser Pro Leu Gly Ala Trp Val Arg Val Trp Arg His

1 5 10 15

Gln Ser Trp Pro Val Cys Asp Ser Pro Gly Ser Ser Thr Ser Ser Leu

20 25 30

Ala Pro Gly Pro Glu Pro Gly Pro Gln Pro Ala Leu His Val Gln Ala

35 40 45

Gln Val Asn Asn Ser Asn Asn Lys Lys Gly Thr Phe Thr Asp Asp Leu

50 55 60

His Lys Leu Val Asp Glu Trp Thr Ser Lys Thr Val Gly Ala Ala Gln

65 70 75 80

Leu Lys Pro Thr Leu Asn Gln Leu Lys Gln Thr Gln Lys Leu Gln Asp

85 90 95

Met Glu Ala Gln Ala Gly Trp Ala Ala Pro Gly Glu Ala Arg Ala Met

100 105 110

Thr Ala Pro Arg Ala Gly Val Gly Met Pro Arg Leu Pro Pro Ala Pro

115 120 125

Gly Pro Leu Ser Thr Thr Val Ile Pro Gly Ala Ala Pro Thr Leu Ser

130 135 140

Val Pro Thr Pro Asp Pro Glu Ser Glu Lys Pro Asp

145 150 155

&lt;210&gt; 4188

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4188

Met Pro Lys Glu Leu Glu Ser Gly Ser His Glu Ser Pro Asp Asp Ser

1

5

10

15

Ser Ser Thr Ala Gln Thr Leu Glu Leu Leu Cys His Leu Asp Asn Thr

20

25

30

Ala His Gly Asn Met Ala Cys Val Val Trp Glu Pro Met Gly Asp Gly

35

40

45

Lys Lys Ile Ile Ser Leu Ala Asp Asn His Ile Leu Leu Trp Asp Leu

50

55

60

Gln Glu Ser Ser Ser Gln Ala Val Leu Ala Ser Ser Ala Ser Leu Glu

65

70

75

80

Gly Lys Gly Gln Leu Lys Phe Thr Ser Gly Arg Trp Ser Pro His His

85

90

95

Asn Cys Thr Gln Val Ala Thr Ala Asn Asp Thr Thr Leu Arg Gly Trp

100

105

110

Asp Thr Arg Ser Met Arg Ser Thr Ala

115

120

&lt;210&gt; 4189

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4189

Met Ala Phe Val Lys Ser Gly Trp Leu Leu Arg Gln Ser Thr Ile Leu

1 5 10 15

Lys Arg Trp Lys Lys Asn Trp Phe Asp Leu Trp Ser Asp Gly His Leu

20 25 30

Ile Tyr Tyr Asp Asp Gln Thr Arg Gln Asn Ile Glu Asp Lys Val His

35 40 45

Met Pro Met Asp Cys Ile Asn Ile Arg Thr Gly Gln Glu Cys Arg Asp

50 55 60

Thr Gln Pro Pro Asp Gly Lys Ser Lys Asp Cys Met Leu Gln Ile Val

65 70 75 80

Cys Arg Asp Gly Lys Thr Ile Ser Leu Cys Ala Glu Ser Thr Asp Asp

85 90 95

Cys Leu Ala Trp Lys Phe Thr Leu Gln Asp Ser Arg Thr Asn Thr Ala

100 105 110

Tyr Val Gly Ser Ala Val Met Thr Asp Glu Thr Ser Val Val Ser Ser

115 120 125

Pro Pro Pro Tyr Thr Ala Tyr Ala Ala Pro Ala Pro Glu Val Gly Arg

130 135 140

Thr Leu Ser Leu Gln Gln Ala Tyr Gly Tyr Gly Pro Tyr Gly Gly Ala

145 150 155 160

Tyr Pro Pro Gly Thr Gln Val Val Tyr Ala Ala Asn Gly Gln Ala Tyr

165 170 175

Ala Val Pro Tyr Gln Tyr Pro Tyr Ala Gly Leu Tyr Gly Gln Gln Pro

180 185 190

Ala Asn Gln Val Ile Ile Arg Glu Arg Tyr Arg Asp Asn Gly Ser Asp

195 200 205

Leu Ala Leu Gly Met Leu Ala Gly Ala Ala Thr Gly Met Ala Leu Gly

210 215 220



Ser Leu Phe Trp Val Phe  
225 230

<210> 4190

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4190

Met	Lys	Ser	Ala	Val	Ile	Thr	Pro	Cys	Ser	His	Phe	Phe	His	Ala	Gly
1				5				10					15		
Cys	Leu	Lys	Lys	Trp	Leu	Tyr	Val	Gln	Glu	Thr	Cys	Pro	Leu	Cys	His
			20					25					30		
Cys	His	Leu	Lys	Asn	Ser	Ser	Gln	Leu	Pro	Gly	Leu	Gly	Thr	Glu	Pro
		35					40						45		
Val	Leu	Gln	Pro	His	Ala	Gly	Ala	Glu	Gln	Asn	Val	Met	Phe	Gln	Glu
	50					55					60				
Gly	Thr	Glu	Pro	Pro	Gly	Gln	Glu	His	Thr	Pro	Gly	Thr	Arg	Ile	Gln
65					70					75				80	
Glu	Gly	Ser	Arg	Asp	Asn	Asn	Glu	Tyr	Ile	Ala	Arg	Arg	Pro	Asp	Asn
				85						90				95	
Gln	Glu	Gly	Ala	Phe	Asp	Pro	Lys	Glu	Tyr	Pro	His	Ser	Ala	Lys	Asp
			100					105					110		
Glu	Ala	His	Pro	Val	Glu	Ser	Ala								
		115						120							

<210> 4191

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4191

Met Arg Val Pro Pro Ala Gly Thr Trp Ala Leu Arg Pro Ile Trp Thr

1 5 10 15

Glu Met Gly Thr Pro Leu Arg Gly Ser Gln Ala Pro Gly Arg Ile Val

20 25 30

Leu Leu Leu Leu Val Ile Thr Pro Gln Trp Arg Trp Ile Pro Ser Lys

35 40 45

Thr Pro Asn Val Ala Pro Arg Ser Asn Gln Arg Cys Asn Pro Gly Gly

50 55 60

Tyr Leu Ser Gly Gly Val Ser Leu Cys Ala Ser His Ser Gln Pro Ala

65 70 75 80

Ala Leu Pro Asn Leu Gly Arg Leu Gln Lys Lys Leu Leu Gln Thr Arg

85 90 95

Cys Lys Gly Arg Arg Met Cys Pro Lys Ala Gly Asp Gln Thr Gly Gly

100 105 110

Ala Phe Cys Met Cys Asp Val Ser Gly Gly Gly Gly Glu Cys Val Ser

115 120 125

Gly Ser Gly Gly Gly Gly Glu Ser Gly Arg Lys Thr Gly Thr Thr Ser

130 135 140

Ala Met Lys Asp Pro Arg Val Leu Lys Cys Lys Leu Arg Val Thr Asn

145 150 155 160

Asp Leu His

&lt;210&gt; 4192

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4192

Met Gly Phe His His Phe Gly Gln Ala Gly Leu Gln Leu Val Thr Ser

1 5 10 15

Gly Asp Leu Ser Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val

20 25 30

Ser His Cys Thr Gln Pro Trp Trp Val Phe Cys Arg Glu Gln Phe Gln

35 40 45

Lys Asp Phe Trp Trp Gln Pro Leu Ser Leu Trp Leu Thr Asp Met Gly

50 55 60

Lys Ile Ile Gln Lys Thr Tyr Leu Arg Gln Asp Val Glu Asn Ser Thr

65 70 75 80

Val Ile Ser Leu Tyr Leu Asn Thr Thr Ser Asn Asn Val Tyr Asp Arg

85 90 95

Val Asp His Phe His Glu Gly Ile Thr Ser Leu Ala Val

100 105

&lt;210&gt; 4193

&lt;211&gt; 976

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4193

Met Asn Thr Gln Lys Gly Ser Leu Thr Ile Asn Val His Arg Gly Ser

1	5	10	15
Leu Ala Met Ser Ile Gln Arg Gly Ser Leu Val Pro Arg Asp Met Asp			
20	25	30	
Ser Ser Gly Arg Asp Met Gln Leu Arg Val Ile Pro Ala Glu Val Lys			
35	40	45	
Phe Leu Asp Thr Met Ala Gly Arg Val Tyr Arg Leu Pro Ile Thr Val			
50	55	60	
His Asn Ile Cys Arg Trp Asn Gln Lys Ile Arg Phe Lys Glu Pro Val			
65	70	75	80
Lys Pro Gln Phe Lys Leu Met Leu Thr Ser Leu Asp Lys Glu Leu Ala			
85	90	95	
Ser Gly Leu Gln Met Thr Ala Met Val Glu Tyr His Pro Asp Lys Asp			
100	105	110	
Glu Asp Thr Phe Asp Arg Leu Leu Ile Ser Ile Glu Asn Lys Thr Thr			
115	120	125	
Glu Ile Pro Leu Ile Gly Leu Ile Pro Ser Cys Gln Leu Glu Ile Glu			
130	135	140	
Ser Val Val Asn Phe Gly Thr Leu Val Ala Asn Ser Lys Val Tyr Ser			
145	150	155	160
Lys Glu Ile Thr Ile Thr Asn His Gly Lys Ala Pro Gly Ile Phe Lys			
165	170	175	
Ala Glu Tyr His Gly Gln Leu Pro Ile Leu Ile Phe Pro Thr Ser Gly			
180	185	190	
Ile Val Asp Ala Lys Ser Ser Met Val Ile Lys Val Asp Phe Cys Ala			
195	200	205	
Asp Gln Pro Arg Ile Val Asp Glu Glu Ala Ile Val Ile Leu Gln Gly			
210	215	220	
Gln Pro Glu Met Leu Leu Ser Ile Lys Ala His Met Val Glu Gln Ile			
225	230	235	240

Ile Glu Leu Leu Ser Met Ser Ser Asp Arg Arg Leu Glu Cys Ile His  
245 250 255  
Phe Gly Pro Val Phe Phe Gly Ser Ser Lys Ile Lys His Ala Arg Val  
260 265 270  
Tyr Asn Asn Ser Pro Glu Pro Ile Asn Trp Val Ala Ile Ile Gln Asp  
275 280 285  
Asp Ala Val Gly Glu Glu Leu Gly Thr Asp Ile Gln Gln Arg Thr Asp  
290 295 300  
Ile Ala Leu Asn Asn Leu Thr Tyr Ile Arg Lys Ile Lys Asn Ile Asp  
305 310 315 320  
Thr Thr Ile Ile Ile Ser Cys Leu Pro Asn Glu Gly Thr Leu Gln Pro  
325 330 335  
Tyr Gln Lys Thr Val Ile Thr Phe Cys Phe Thr Pro Lys Leu Met Ala  
340 345 350  
Val Gly Lys Lys Asp Ile Gly Pro Ser Tyr Arg Gln Asp Tyr Ala Leu  
355 360 365  
Phe Leu Arg Phe Glu Ser Val Gly Ser Lys Asp Gly Phe Leu Arg Asp  
370 375 380  
Asp Asp Tyr Lys Thr Ile Lys Ser Glu Arg Phe Gln Lys Val Glu Leu  
385 390 395 400  
Ala Leu Thr Gly Thr Gly Leu Pro Val Leu Leu Gln Phe Asp Pro Gly  
405 410 415  
Pro Val Leu Asn Phe Lys Pro Cys Phe Met Gly Glu Arg Ser Glu Ile  
420 425 430  
Gln Cys Ile Ile Lys Asn Gln Cys Glu Leu Leu Pro Val Thr Tyr His  
435 440 445  
Phe Lys Lys Thr Ala Asn Phe Glu Ile Asp Pro Glu Lys Gly Lys Ile  
450 455 460  
Thr Gly Gly Gly Met Val Asp Val Met Cys Ser Phe Val Pro His Gln

465                      470                      475                      480  
Leu Gly Val Phe Lys Val Lys Gln Met Ile Glu Ile Ile Gly Leu Val  
                         485                      490                      495  
Ala Glu Glu Asp Leu Gln Ser Leu Ser Val Lys Ser Phe His His Val  
                         500                      505                      510  
Tyr Leu Ala Phe Asn Ser Ile Cys Lys Thr Ser Thr Lys Lys Val Val  
                         515                      520                      525  
Met Lys Phe Asp Pro Gly Ile Leu Pro Ser Ile Arg Asn Pro Thr Gly  
                         530                      535                      540  
Lys Phe Val Val Lys Asp Leu Ala Lys Arg Lys Asn Tyr Ala Pro Val  
545                      550                      555                      560  
Ala Met Leu Gln Ser Ala Met Thr Arg Thr His Asn His Arg Ser Cys  
                         565                      570                      575  
Glu Glu Pro Val Lys Asp Met Leu Leu Ala Phe Pro Asn Asp Arg Ala  
                         580                      585                      590  
Ala Thr Ile Arg Ser Lys Asp His His Lys His Phe Arg Pro Ile Phe  
                         595                      600                      605  
Thr Lys Val Pro Arg Phe Asn Tyr Val Asn His Asp Phe Ala Tyr Thr  
                         610                      615                      620  
Thr Phe Glu Lys Gln Gln Lys Lys Leu His Glu Asn Tyr Tyr Ala Met  
625                      630                      635                      640  
Tyr Leu Lys Tyr Leu Arg Ser Val Arg Leu Gln Lys Lys Gln Ala Glu  
                         645                      650                      655  
Arg Glu Arg Met Tyr Ser Tyr Asp Asp Thr Asp Ile Gly Leu Glu Pro  
                         660                      665                      670  
Gly Ser Gly Leu Lys Ser Pro Ser Leu Ser Glu Ala Glu Ile Glu Glu  
                         675                      680                      685  
Glu Leu Ser Ser Ala Ala Asn Ser Ile Arg Ala Asn Arg Leu Leu Thr  
                         690                      695                      700

Thr Arg Gly Ile Ala Ser Gln Glu Glu Glu Ser Val Arg Arg Lys Val  
705 710 715 720  
Leu Lys Gly Leu Lys Ser Glu Pro Ser Thr Pro Gln Glu Lys His Asp  
725 730 735  
Cys Ser Leu Met Leu Thr Pro Lys Gln Ile His Gln Val Ile Val Gly  
740 745 750  
Pro Ser Val Leu Asn Phe Gly Asn Ile Cys Val Asn Ser Pro Asn Thr  
755 760 765  
His Leu Leu His Val Ile Asn Met Leu Pro Met His Val Leu Leu Gln  
770 775 780  
Leu Asp Thr Asp Leu Glu Glu Leu Gln Lys Thr Asn Gln Phe Ser Tyr  
785 790 795 800  
Val Ile Leu Pro Thr Ser Ser Thr Tyr Ile Ser Met Val Phe Asp Ser  
805 810 815  
Pro Thr Ile Gly Lys Phe Trp Lys Ser Phe Thr Phe Thr Val Asn Asn  
820 825 830  
Val Pro Ser Gly His Ile Leu Val Val Ala Val Val Gln Pro Val Thr  
835 840 845  
Leu Glu Leu Ser Ser Asn Glu Leu Val Leu Arg Pro Arg Gly Phe Phe  
850 855 860  
Met Lys Thr Cys Phe Arg Gly Thr Val Arg Leu Tyr Asn Arg Gln Asn  
865 870 875 880  
Cys Cys Ala Gln Phe Gln Trp Gln Pro Val Asn Thr Gly Arg Gly Ile  
885 890 895  
Ala Phe Ser Ile Cys Pro Ser Lys Gly Thr Val Glu Ala Tyr Ser Ser  
900 905 910  
Leu Glu Cys Glu Val Thr Trp Gln Gln Gly Phe Ser Ser Pro Glu Glu  
915 920 925  
Gly Glu Phe Ile Leu His Val Phe Gln Gly Asn Ala Leu Lys Leu Lys

930	935	940
Cys Val Ala His Val Ile Ile Phe Leu Glu His Gly Phe Cys Phe Glu		
945	950	955
Gly Tyr Glu Leu Val Gly Tyr Thr Leu Val Tyr Ile Val Thr Tyr Ile		
965	970	975

&lt;210&gt; 4194

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4194

Met Ser Thr His His Gln Asn Pro Ala Asn Gly Pro Pro Leu Pro Pro		
1	5	10
Ser Pro Asp Ala Glu Met Val Met Gly Ser Trp Arg Val Gly Ser Glu		
20	25	30
Met Lys Gly Thr Pro Gln Trp Ala Ala Gly Pro Ile Phe Pro Lys Pro		
35	40	45
Cys His Tyr Leu Cys Glu Gly Gly Gln Val Ala Glu Gly Ser Gly Cys		
50	55	60
Arg Leu Leu Tyr Pro Leu Cys Leu Lys His Pro Pro His Arg Ala Leu		
65	70	75
Val Phe Thr Arg Phe Val Leu Asp Ser Leu Asn Gly Asn Arg Ile Pro		
85	90	95
Trp Leu Arg Ala Lys Thr Thr Thr Tyr Gln Cys Pro Cys Pro Phe Gln		
100	105	110
Leu Thr Leu Ser Ser Leu Arg Ser Ser Leu Ser Leu Trp Lys Gly His		
115	120	125



Pro Ser Gln Gly Arg Asn Ala Trp Ser

130

135

<210> 4195

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4195

Met Lys Ser Arg Phe Val Asp Ser Gly Glu Met Ser Glu Ser Phe Pro

1

5

10

15

Tyr Arg Thr Lys Ala Leu Phe Ala Phe Glu Glu Ile Asp Gly Val Asp

20

25

30

Val Cys Phe Phe Gly Met His Val Gln Glu Tyr Gly Ser Asp Cys Pro

35

40

45

Pro Pro Asn Thr Arg Tyr Val Thr Gly His Ile Trp Ala Cys Pro Pro

50

55

60

Ser Glu Gly Asp Asp Tyr Ile Phe His Cys His Pro Pro Asp Gln Lys

65

70

75

80

Ile Pro Lys Pro Lys Arg Leu Gln Glu Trp Tyr Lys Lys Met Leu Asp

85

90

95

Lys Ala Phe Ala Glu Arg Ile Ile His Asp Tyr Lys Asp Ile Phe Lys

100

105

110

Gln Ala Thr Glu Asp Arg Leu Thr Ser Ala Lys Glu Leu Pro Tyr Phe

115

120

125

Glu Gly Asp Phe Trp Pro Asn Val Leu Glu Glu Ser Ile Lys Glu Leu

130

135

140

Glu Gln Glu Glu Glu Glu Arg Lys Lys Glu Glu Ser Thr Ala Ala Ser

145                      150                      155                      160  
Glu Thr Thr Glu Gly Ser Gln Gly Asp Ser Lys Asn Ala  
                         165                      170

<210> 4196

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4196

Met Pro Leu Ala Leu Leu Gln Met Arg Pro Pro Lys Met Ser Pro Asp  
1                      5                      10                      15  
Val Thr Thr Cys Pro Leu Gly Gly Lys Ser Ala Pro Val Glu Ser Thr  
                         20                      25                      30  
Gly Ser Phe Leu His Ser Pro Asp Leu Ala Ala Cys Thr Gly His Phe  
                         35                      40                      45  
Ser Glu Val Phe Gln Cys Thr Leu Cys Pro Gly Tyr Leu Gly His Ser  
                         50                      55                      60  
Thr Leu Ala Gln Arg Gly Trp Leu Thr Cys Leu Arg Arg Cys Phe Leu  
65                      70                      75                      80  
Gly Asp Ala Val Ala Ser Phe Leu Ser Val Leu Val Ile Phe Leu Ser  
                         85                      90                      95  
Ser Leu Pro Pro Tyr Ile Pro His Asp Arg Cys Val Tyr Val His Thr  
                         100                      105                      110  
Ser Ala Ser Leu His Ser Ala Pro Cys Gln Val Ser Cys Gln Ser Val  
                         115                      120                      125  
Pro Leu Pro Ser Gly Ser Ala Thr Ser Cys Thr Asp Ser Thr Thr Ala  
130                      135                      140

His Thr Cys Val Cys Pro Ala Val Asp Pro Pro Pro Lys Ala Ala Ser  
 145                      150                      155                      160  
 Ala Asp Ser Arg Glu Pro Ser Thr Leu Lys Ser Gly Gln Ala Gly Ile  
                          165                      170                      175  
 Ala Thr Cys Leu Ser  
                          180

<210> 4197

<211> 1358

<212> PRT

<213> Homo sapiens

<400> 4197

Met Gln Asp Ser Lys Gly Arg Leu His Ala Leu Thr Ser Val Ser Arg  
 1                      5                      10                      15  
 Glu Gln Ile Val Gly Gly Asp Val Gln Gly Tyr Arg Trp Met Phe Glu  
                          20                      25                      30  
 Thr Gln Pro Leu Asp Gln Leu Gly Arg Ser Pro Ser Thr Ile Asp Val  
                          35                      40                      45  
 Val Arg Gly Ile Thr Arg Gln Glu Val Val Ala Gly Asp Val Gly Thr  
                          50                      55                      60  
 Ala Arg Trp Leu Phe Glu Thr Gln Pro Leu Glu Met Ile His Gln Arg  
 65                      70                      75                      80  
 Glu Gln Gln Glu Arg Gln Lys Glu Glu Gly Lys Ser Gln Gly Asp Pro  
                          85                      90                      95  
 Gln Pro Glu Ala Pro Pro Lys Gly Asp Val Gln Thr Ile Arg Trp Leu  
                          100                      105                      110  
 Phe Glu Thr Cys Pro Met Ser Glu Leu Ala Glu Lys Gln Gly Ser Glu

115	120	125
Val Thr Asp Pro Thr Ala Lys	Ala Glu Ala Gln Ser Cys	Thr Trp Met
130	135	140
Phe Lys Pro Gln Pro Val Asp Arg	Pro Val Gly Ser Arg	Glu Gln His
145	150	155
Leu Gln Val Ser Gln Val Pro Ala Gly	Glu Arg Gln Thr Asp Arg	His
165	170	175
Val Phe Glu Thr Glu Pro Leu Gln Ala	Ser Gly Arg Pro Cys Gly	Arg
180	185	190
Arg Pro Val Arg Tyr Cys Ser Arg	Val Glu Ile Pro Ser Gly	Gln Val
195	200	205
Ser Arg Gln Lys Glu Val Phe Gln Ala	Leu Glu Ala Gly Lys Lys	Glu
210	215	220
Glu Gln Glu Pro Arg Val Ile Ala Gly	Ser Ile Pro Ala Gly Ser	Val
225	230	235
His Lys Phe Thr Trp Leu Phe Glu Asn	Cys Pro Met Gly Ser Leu	Ala
245	250	255
Ala Glu Ser Ile Gln Gly Gly Asn Leu	Leu Glu Glu Gln Pro Met	Ser
260	265	270
Pro Ser Gly Asn Arg Met Gln Glu Ser	Gln Glu Thr Ala Ala Glu	Gly
275	280	285
Thr Leu Arg Thr Leu His Ala Thr Pro	Gly Ile Leu His His Gly	Gly
290	295	300
Ile Leu Met Glu Ala Arg Gly Pro Gly	Glu Leu Cys Leu Ala Lys	Tyr
305	310	315
Val Leu Ser Gly Thr Gly Gln Gly His	Pro Tyr Ile Arg Lys Glu	Glu
325	330	335
Leu Val Ser Gly Glu Leu Pro Arg Ile	Ile Cys Gln Val Leu Arg	Arg
340	345	350

Pro Asp Val Asp Gln Gln Gly Leu Leu Val Gln Glu Asp Pro Thr Gly  
355 360 365  
Gln Leu Gln Leu Lys Pro Leu Arg Leu Pro Thr Pro Gly Ser Ser Gly  
370 375 380  
Asn Ile Glu Asp Met Asp Pro Glu Leu Gln Gln Leu Leu Ala Cys Gly  
385 390 395 400  
Leu Gly Thr Ser Val Ala Arg Thr Gly Leu Val Met Gln Glu Thr Glu  
405 410 415  
Gln Gly Leu Val Ala Leu Thr Ala Tyr Ser Leu Gln Pro Arg Leu Thr  
420 425 430  
Ser Lys Ala Ser Glu Arg Ser Ser Val Gln Leu Leu Ala Ser Cys Ile  
435 440 445  
Asp Lys Gly Asp Leu Ser Gly Leu His Ser Leu Arg Trp Glu Pro Pro  
450 455 460  
Ala Asp Pro Ser Pro Val Pro Ala Ser Glu Gly Ala Gln Ser Leu His  
465 470 475 480  
Pro Thr Glu Ser Ile Ile His Val Pro Pro Leu Asp Pro Ser Met Gly  
485 490 495  
Met Gly His Leu Arg Ala Ser Gly Ala Thr Pro Cys Pro Pro Gln Ala  
500 505 510  
Ile Gly Lys Ala Val Pro Leu Ala Gly Glu Ala Ala Ala Pro Ala Gln  
515 520 525  
Leu Gln Asn Thr Glu Lys Gln Glu Asp Ser His Ser Gly Gln Lys Gly  
530 535 540  
Met Ala Val Leu Gly Lys Ser Glu Gly Ala Thr Thr Thr Pro Pro Gly  
545 550 555 560  
Pro Gly Ala Pro Asp Leu Leu Ala Ala Met Gln Ser Leu Arg Met Ala  
565 570 575  
Thr Ala Glu Ala Gln Ser Leu His Gln Gln Val Leu Asn Lys His Lys

580 585 590  
Gln Gly Pro Thr Pro Thr Ala Thr Ser Asn Pro Ile Gln Asp Gly Leu  
595 600 605  
Arg Lys Ala Gly Ala Thr Gln Ser Asn Ile Arg Pro Gly Gly Gly Ser  
610 615 620  
Asp Pro Arg Ile Pro Ala Ala Pro Arg Lys Val Ser Arg Glu Glu Gln  
625 630 635 640  
Ala Leu Pro Arg Gly Leu Pro Gly Gly Trp Val Thr Ile Gln Asp Gly  
645 650 655  
Ile Tyr Thr Ala His Pro Val Arg Thr Phe Asp Pro Pro Gly Gly Val  
660 665 670  
Gln Leu Ser Gln Arg Glu Pro Gln Ser Arg His Arg Glu Thr Ala Leu  
675 680 685  
Ser Val Gln Ala Pro Arg Pro Leu Gln Gly Gly Pro Gly Gln Ser Thr  
690 695 700  
Gly Pro Gly Arg Glu Glu Pro Gly Gly Cys Thr Gln Met Ala Trp Gly  
705 710 715 720  
Pro Pro Gly Lys Ala Met Ala Glu Val Cys Pro Gly Gly Leu Gln Ala  
725 730 735  
Ala Glu Thr Thr Leu Lys Thr Ala Pro Leu Gly Arg His Ile Leu Ala  
740 745 750  
Ser Gly Pro Gln Ala Ala Gly Ala Ser Pro His Pro His Asn Ala Phe  
755 760 765  
Val Pro Pro Pro Pro Thr Leu Pro Ala Ala Val Thr Gly Pro Asp Phe  
770 775 780  
Pro Ala Gly Ala His Arg Ala Glu Asp Ser Ile Gln Gln Ala Ser Glu  
785 790 795 800  
Pro Leu Lys Asp Pro Leu Leu His Ser His Ser Ser Pro Ala Gly Gln  
805 810 815

Arg Thr Pro Gly Gly Ser Gln Thr Lys Thr Pro Lys Leu Asp Pro Thr  
820 825 830

Met Pro Pro Lys Lys Lys Pro Gln Leu Pro Pro Lys Pro Ala His Leu  
835 840 845

Thr Gln Ser His Pro Pro Gln Arg Leu Pro Lys Pro Leu Pro Leu Ser  
850 855 860

Pro Ser Phe Ser Ser Glu Val Gly Gln Arg Glu His Gln Arg Gly Glu  
865 870 875 880

Arg Asp Thr Ala Ile Pro Gln Pro Ala Lys Val Pro Thr Thr Val Asp  
885 890 895

Gln Gly His Ile Pro Leu Ala Arg Cys Pro Ser Gly His Ser Gln Pro  
900 905 910

Ser Leu Gln His Gly Leu Ser Thr Thr Ala Pro Arg Pro Thr Lys Asn  
915 920 925

Gln Ala Thr Gly Ser Asn Ala Gln Ser Ser Glu Pro Pro Lys Leu Asn  
930 935 940

Ala Leu Asn His Asp Pro Thr Ser Pro Gln Trp Gly Pro Gly Pro Ser  
945 950 955 960

Gly Glu Gln Pro Met Glu Gly Ser His Gln Gly Ala Pro Glu Ser Pro  
965 970 975

Asp Ser Leu Gln Arg Asn Gln Lys Glu Leu Gln Gly Leu Leu Asn Gln  
980 985 990

Val Gln Ala Leu Glu Lys Glu Ala Ala Ser Ser Val Asp Val Gln Ala  
995 1000 1005

Leu Arg Arg Leu Phe Glu Ala Val Pro Gln Leu Gly Gly Ala Ala Pro  
1010 1015 1020

Gln Ala Pro Ala Ala His Gln Lys Pro Glu Ala Ser Val Glu Gln Ala  
1025 1030 1035 1040

Phe Gly Glu Leu Thr Arg Val Ser Thr Glu Val Ala Gln Leu Lys Glu

1045	1050	1055
Gln Thr Leu Ala Arg Leu Leu Asp Ile Glu Glu Ala Val His Lys Ala		
1060	1065	1070
Leu Ser Ser Met Ser Ser Leu Gln Pro Glu Ala Ser Ala Arg Gly His		
1075	1080	1085
Phe Gln Gly Pro Pro Lys Asp His Ser Ala His Lys Ile Ser Val Thr		
1090	1095	1100
Val Ser Ser Ser Ala Arg Pro Ser Gly Ser Gly Gln Glu Val Gly Gly		
1105	1110	1115
Gln Thr Ala Val Lys Asn Gln Ala Lys Val Glu Cys His Thr Glu Ala		
1125	1130	1135
Gln Ser Gln Val Lys Ile Arg Asn His Thr Glu Ala Arg Gly His Thr		
1140	1145	1150
Ala Ser Thr Ala Pro Ser Thr Arg Arg Gln Glu Thr Ser Arg Glu Tyr		
1155	1160	1165
Leu Cys Pro Pro Arg Val Leu Pro Ser Ser Arg Asp Ser Pro Ser Ser		
1170	1175	1180
Pro Thr Phe Ile Ser Ile Gln Ser Ala Thr Arg Lys Pro Leu Glu Thr		
1185	1190	1195
Pro Ser Phe Lys Gly Asn Pro Asp Val Ser Val Lys Ser Thr Gln Leu		
1205	1210	1215
Ala Gln Asp Ile Gly Gln Ala Leu Leu His Gln Lys Gly Val Gln Asp		
1220	1225	1230
Lys Thr Gly Lys Lys Asp Ile Thr Gln Cys Ser Val Gln Pro Glu Pro		
1235	1240	1245
Ala Pro Pro Ser Ala Ser Pro Leu Pro Arg Gly Trp Gln Lys Ser Val		
1250	1255	1260
Leu Glu Leu Gln Thr Gly Pro Gly Ser Ser Gln His Tyr Gly Ala Met		
1265	1270	1275
		1280



Arg Thr Val Thr Glu Gln Tyr Glu Glu Val Asp Gln Phe Gly Asn Thr  
 1285 1290 1295  
 Val Leu Met Ser Ser Thr Thr Val Thr Glu Gln Ala Glu Pro Pro Arg  
 1300 1305 1310  
 Asn Pro Gly Ser His Leu Gly Leu His Ala Ser Pro Leu Leu Arg Gln  
 1315 1320 1325  
 Phe Leu His Ser Pro Ala Gly Phe Ser Ser Asp Leu Thr Glu Ala Glu  
 1330 1335 1340  
 Thr Val Gln Val Ser Cys Ser Tyr Ser Gln Pro Ala Ala Gln  
 1345 1350 1355

<210> 4198

<211> 331

<212> PRT

<213> Homo sapiens

<400> 4198

Met Ala Glu Gly Gly Gly Pro Glu Pro Gly Glu Gln Glu Arg Arg Ser  
 1 5 10 15  
 Ser Gly Pro Arg Pro Pro Ser Ala Arg Asp Leu Gln Leu Ala Leu Ala  
 20 25 30  
 Glu Leu Tyr Glu Asp Glu Val Lys Cys Lys Ser Ser Lys Ser Asn Arg  
 35 40 45  
 Pro Lys Ala Thr Val Phe Lys Ser Pro Arg Thr Pro Pro Gln Arg Phe  
 50 55 60  
 Tyr Ser Ser Glu His Glu Tyr Ser Gly Leu Asn Ile Val Arg Pro Ser  
 65 70 75 80  
 Thr Gly Lys Ile Val Asn Glu Leu Phe Lys Glu Ala Arg Glu His Gly

	85	90	95
Ala Val Pro Leu Asn Glu Ala Thr Arg Ala Ser Gly Asp Asp Lys Ser			
100	105	110	
Lys Ser Phe Thr Gly Gly Gly Tyr Arg Leu Gly Ser Ser Phe Cys Lys			
115	120	125	
Arg Ser Glu Tyr Ile Tyr Gly Glu Asn Gln Leu Gln Asp Val Gln Ile			
130	135	140	
Leu Leu Lys Leu Trp Ser Asn Gly Phe Ser Leu Asp Asp Gly Glu Leu			
145	150	155	160
Arg Pro Tyr Asn Glu Pro Thr Asn Ala Gln Phe Leu Glu Ser Val Lys			
165	170	175	
Arg Gly Glu Ile Pro Leu Glu Leu Gln Arg Leu Val His Gly Gly Gln			
180	185	190	
Val Asn Leu Asp Met Glu Asp His Gln Asp Gln Glu Tyr Ile Lys Pro			
195	200	205	
Arg Leu Arg Phe Lys Ala Phe Ser Gly Glu Gly Gln Lys Leu Gly Ser			
210	215	220	
Leu Thr Pro Glu Ile Val Ser Thr Pro Ser Ser Pro Glu Glu Glu Asp			
225	230	235	240
Lys Ser Ile Leu Asn Ala Val Val Leu Ile Asp Asp Ser Val Pro Thr			
245	250	255	
Thr Lys Ile Gln Ile Arg Leu Ala Asp Gly Ser Arg Leu Ile Gln Arg			
260	265	270	
Phe Asn Ser Thr His Arg Ile Leu Asp Val Arg Asn Phe Ile Val Gln			
275	280	285	
Ser Arg Pro Glu Phe Ala Ala Leu Asp Phe Ile Leu Val Thr Ser Phe			
290	295	300	
Pro Asn Lys Glu Leu Thr Asp Glu Ser Leu Thr Leu Leu Glu Ala Asp			
305	310	315	320

Ile Leu Asn Thr Val Leu Leu Gln Gln Leu Lys

325

330

<210> 4199

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4199

Met Thr Phe Ser Leu Ala Arg Ile Lys Arg Gly Gly Cys Phe Leu Ala

1

5

10

15

Gly Phe Arg Asn Leu Phe Lys Trp Phe His Cys Pro Phe Ile His Pro

20

25

30

Ser Thr His Pro Thr Ile Gln Pro Ala Ile His Pro Leu Phe Ile Gln

35

40

45

Gln Thr Phe Ser Cys Thr Arg Glu Leu Lys Gly Glu Gly Ser Gly Pro

50

55

60

Trp Ala Pro Pro Ala Cys Arg Glu Thr Pro Leu Cys Gly Arg Arg Gly

65

70

75

80

Gly Leu Cys Pro Leu Tyr Pro Pro Ser Val Pro Val Val Phe Arg Pro

85

90

95

Val Thr Cys Leu Asn Leu Ser Val Cys Leu

100

105

<210> 4200

<211> 527

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4200

Met	Val	Tyr	Ile	Val	Arg	Gln	Phe	Leu	Leu	Tyr	Asn	Val	Ser	Gly	Ser
1				5				10						15	
Val	Tyr	Leu	Asp	Gln	Leu	Ile	Val	Leu	Leu	Thr	Ala	Lys	Phe	Ser	Ile
			20					25					30		
Leu	Arg	Ile	Ala	Gly	Ser	Arg	Val	His	His	Ser	Pro	Phe	Ser	Gly	His
		35					40					45			
Leu	Asp	Gly	Cys	Ser	Phe	Leu	Ser	Leu	Gln	His	Ser	Leu	His	Thr	Ser
	50					55					60				
Leu	Asp	Met	Ser	Arg	His	Glu	Asn	Val	Phe	Leu	Gly	Leu	Thr	Leu	Ser
65				70					75					80	
Ser	Lys	Ser	Ala	Gly	Leu	Lys	Gly	Phe	Gln	Leu	Ala	Phe	Val	Pro	Gly
			85					90					95		
Leu	Leu	Gln	Gly	Thr	Gly	Gly	Tyr	Leu	Asp	Gly	Pro	Leu	Pro	Thr	Pro
		100						105				110			
Val	Asp	Asn	Pro	Arg	Val	Gly	Leu	Glu	Val	Gly	Leu	Arg	Leu	Ser	Leu
		115					120					125			
Pro	Pro	Leu	Pro	Pro	Cys	Pro	Gly	Val	His	Ile	Gln	Ser	Ser	Gln	Thr
	130					135					140				
Val	Glu	Ser	Ser	Gly	Leu	Tyr	Thr	Leu	Gln	Ser	Ile	Leu	Lys	Ala	Gln
145				150					155					160	
Leu	Val	Lys	Glu	Asp	Lys	Asp	Ala	Gln	Phe	Tyr	Cys	Glu	Leu	Asn	Tyr
			165					170				175			
Arg	Leu	Pro	Ser	Gly	Asn	His	Met	Lys	Glu	Ser	Arg	Glu	Val	Thr	Val
		180						185				190			
Pro	Val	Phe	Tyr	Pro	Thr	Glu	Lys	Val	Trp	Leu	Glu	Val	Glu	Pro	Val
	195							200				205			

Gly Met Leu Lys Glu Gly Asp Arg Val Glu Ile Arg Cys Leu Ala Asp  
210 215 220

Gly Asn Pro Pro Pro His Phe Ser Ile Ser Lys Gln Asn Pro Ser Thr  
225 230 235 240

Arg Glu Ala Glu Glu Glu Thr Thr Asn Asp Asn Gly Val Leu Val Leu  
245 250 255

Glu Pro Ala Arg Lys Glu His Ser Gly Arg Tyr Glu Cys Gln Gly Leu  
260 265 270

Asp Leu Asp Thr Met Ile Ser Leu Leu Ser Glu Pro Gln Glu Leu Leu  
275 280 285

Val Asn Tyr Val Ser Asp Val Arg Val Ser Pro Ala Ala Pro Glu Arg  
290 295 300

Gln Glu Gly Ser Ser Leu Thr Leu Thr Cys Glu Ala Glu Ser Ser Gln  
305 310 315 320

Asp Leu Glu Phe Gln Trp Leu Arg Glu Glu Thr Gly Gln Val Leu Glu  
325 330 335

Arg Gly Pro Val Leu Gln Leu His Asp Leu Lys Arg Glu Ala Gly Gly  
340 345 350

Gly Tyr Arg Cys Val Ala Ser Val Pro Ser Ile Pro Gly Leu Asn Arg  
355 360 365

Thr Gln Leu Val Asn Val Ala Ile Phe Gly Pro Pro Trp Met Ala Phe  
370 375 380

Lys Glu Arg Lys Val Trp Val Lys Glu Asn Met Val Leu Asn Leu Ser  
385 390 395 400

Cys Glu Ala Ser Gly His Pro Arg Pro Thr Ile Ser Trp Asn Val Asn  
405 410 415

Gly Thr Ala Ser Glu Gln Asp Gln Asp Pro Gln Arg Val Leu Ser Thr  
420 425 430

Leu Asn Val Leu Val Thr Pro Glu Leu Leu Glu Thr Gly Val Glu Cys

435                      440                      445  
 Thr Ala Ser Asn Asp Leu Gly Lys Asn Thr Ser Ile Leu Phe Leu Glu  
 450                      455                      460  
 Leu Val Asn Leu Thr Thr Leu Thr Pro Asp Ser Asn Thr Thr Thr Gly  
 465                      470                      475                      480  
 Leu Ser Thr Ser Thr Ala Ser Pro His Thr Arg Ala Asn Ser Thr Ser  
                          485                      490                      495  
 Thr Gly Lys Pro Gly Leu Ala Arg Glu Gln Gly Cys Ala Arg Ala Ser  
                          500                      505                      510  
 Phe Leu Pro Cys Pro Ser Pro Glu Ser Pro Val Gln Lys Gly Glu  
                          515                      520                      525

<210> 4201

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4201

Met Thr Thr Pro Pro Thr Ser Leu Pro Glu Pro Phe Ser Gly Asp Pro  
     1                      5                      10                      15  
 Gly Arg Leu Ala Gly Phe Leu Met Gln Met Asp Arg Phe Met Ile Phe  
                          20                      25                      30  
 Gln Ala Ser Arg Phe Pro Gly Glu Ala Glu Arg Val Ala Phe Leu Val  
                          35                      40                      45  
 Ser Arg Leu Thr Gly Glu Ala Glu Lys Trp Ala Ile Pro His Met Gln  
                          50                      55                      60  
 Pro Asp Ser Pro Leu Arg Asn Asn Tyr Gln Gly Phe Leu Ala Glu Leu  
                          65                      70                      75                      80

Arg Arg Thr Tyr Lys Ser Pro Leu Arg His Ala Arg Arg Ala Gln Ile

85

90

95

Arg Lys Thr Ser Ala Ser Asn Arg Ala Val Arg Glu Arg Gln Met Leu

100

105

110

Cys Arg Gln Leu Ala Ser Ala Gly Thr Gly Pro Cys Pro Val His Pro

115

120

125

Ala Ser Asn Gly Thr Ser Pro Ala Pro Ala Leu Pro Ala Arg Ala Arg

130

135

140

Asn Leu

145

<210> 4202

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4202

Met Ile Pro Trp Arg Arg Arg Gly Val Leu Val Phe Gly Ile Phe Ser

1

5

10

15

Leu Leu Val Leu Val Phe Pro His Leu Pro Gly Phe Ile Cys Leu Trp

20

25

30

Ser Leu Met Leu Val Thr Phe Gly Trp Gly Phe Cys Val Asp Ile Val

35

40

45

Phe Val Asp Val Asp Ala Ile Pro Phe Cys Phe Leu Val Phe Leu Leu

50

55

60

Thr Gly Arg Leu Leu Ser Cys Arg Pro Ala Gly Val Cys Trp Arg Ser

65

70

75

80

Thr Pro Asp Pro Val Cys Leu Ser Ile Thr Ser Arg His Cys Arg Thr

	85	90	95
Ala Lys Ile	Ala Ala Cys Ser Phe Leu Trp Lys Phe Arg Pro Arg Gly		
100	105	110	
Ala Pro Ala Arg Cys			
115			

&lt;210&gt; 4203

&lt;211&gt; 369

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4203

Met Ile Gln Gly Arg Leu Phe Asn Met Leu Ser Ala Val Arg Glu Met			
1	5	10	15
Asp Lys Glu Ser Ile Leu Arg Lys Ile Gly Gln Ala Lys Gln Ser Ile			
20	25	30	
Ala Gln Glu Ala Asn Phe Phe Lys Phe Phe Leu Arg Arg Ile Ser Gln			
35	40	45	
Asp Asp Tyr Thr Ser Arg Phe Ser Val Ser Pro Lys Glu Val Leu Pro			
50	55	60	
Phe Ala Phe Pro Asp Cys Ser Pro Pro Gln Asp Ser Asn Glu Leu Ala			
65	70	75	80
Pro Asp Gly Leu Gly Leu Val Pro Ile Lys Ser Ser Glu Val Gln Ile			
85	90	95	
Lys Gln Ser Tyr Ser Phe Phe Asn Leu Gln Val Pro Gln Leu Tyr Lys			
100	105	110	
Ile Lys Arg Tyr Gln Pro Phe Ser Val His Lys Ser Ser Thr Ser Tyr			
115	120	125	



Arg Pro Gln Lys Leu Ala Arg Ala Leu Lys Gln Gly Ala Glu Asp Glu  
 130 135 140  
 Val Thr Thr Ile Thr Ala Leu Pro Lys Gln Asp Ser Thr Thr Gln Leu  
 145 150 155 160  
 Ser Gly Lys Thr Ser Ile Leu Ser Met Lys Pro Pro Glu Ala Leu Ala  
 165 170 175  
 Met Ser Leu Asp Tyr Asp Pro Leu Tyr Val Phe Asn Pro Asn Pro Gly  
 180 185 190  
 Leu Phe Ala Val Met His Pro Leu Thr Tyr Ala Glu Thr Leu Ile Asp  
 195 200 205  
 Tyr His Leu Cys Ser His Pro Lys Tyr Lys Phe Thr Lys Glu Ser Arg  
 210 215 220  
 His Gly Ser Ser Ile Pro Val Thr Gln Lys Gln Phe Leu His His Thr  
 225 230 235 240  
 Asp Ile Ile Pro Gly Ile Met His Trp Lys Ser Phe Gln Ser Leu Val  
 245 250 255  
 Leu Ser Ser Leu Pro Asp Pro Ser Lys Met Glu Thr Thr Lys Ser Cys  
 260 265 270  
 Asp Ser Phe Asn Ser Phe Met Leu Pro Ile Asp Val Pro Ala Ile Leu  
 275 280 285  
 Asp Ala Leu Pro Glu Glu Asp Arg Leu Glu Thr Val Glu Arg Glu Leu  
 290 295 300  
 Cys Glu Gln Asn Val Glu Val Met Leu Thr Pro Glu Met Ile Lys Val  
 305 310 315 320  
 Glu Phe Pro Met Leu Asn Tyr Lys Asp Ile Arg Lys Glu Lys Glu Val  
 325 330 335  
 Lys Asp Gln Ala Gln Pro Ala Glu Lys Ala Gly Glu Lys Leu Leu Glu  
 340 345 350  
 Glu Met Arg Asn Leu Arg Gly Lys Ala Leu Asn Thr Tyr Leu Ile Leu

355 360 365  
Glu

<210> 4204

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4204

Met Pro Lys Ile Ile Leu Cys Pro Asn His Lys Phe Ser Gly Leu Pro  
1 5 10 15

Arg Asn His Leu Val Cys Ile Glu Cys Phe Ser Lys Cys Arg Asp Ala  
20 25 30

Gln Val Val Gly Ile Gln Tyr Ile Glu Leu Ser Arg Cys Thr Phe Leu  
35 40 45

Glu Tyr Asn Leu Asn Gly His Phe Pro Thr Cys Ala Ile Pro Leu Phe  
50 55 60

Ser Pro His Ser Ile His Ile Ser Gln Thr Thr Leu Ile Ile Val Phe  
65 70 75 80

Ile Ile Asp Leu Arg Lys Lys Lys Phe Glu Arg Val Glu Lys Thr Cys  
85 90 95

Ile Leu Ser Pro Trp Ile Val Asn His  
100 105

<210> 4205

<211> 610

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4205

Met	Ala	Glu	Leu	Ser	Glu	Pro	Glu	Gly	Pro	Val	Asp	Trp	Lys	Glu	Arg
1				5					10					15	
Cys	Val	Ala	Leu	Glu	Ser	Gln	Leu	Met	Lys	Phe	Arg	Val	Gln	Ala	Ser
			20					25					30		
Lys	Ile	Arg	Glu	Leu	Leu	Ala	Glu	Lys	Met	Gln	Gln	Leu	Glu	Arg	Gln
		35					40						45		
Val	Ile	Asp	Ala	Glu	Arg	Gln	Ala	Glu	Lys	Ala	Phe	Gln	Gln	Val	Gln
	50					55					60				
Val	Met	Glu	Asp	Lys	Leu	Lys	Ala	Ala	Asn	Ile	Gln	Thr	Ser	Glu	Ser
65				70					75					80	
Glu	Thr	Arg	Leu	Tyr	Asn	Lys	Cys	Gln	Asp	Leu	Glu	Ser	Leu	Ile	Gln
				85					90					95	
Glu	Lys	Asp	Asp	Val	Ile	Gln	Asn	Leu	Glu	Leu	Gln	Leu	Glu	Glu	Gln
		100						105					110		
Lys	Gln	Ile	Arg	Ile	Gln	Glu	Ala	Lys	Ile	Ile	Glu	Glu	Lys	Ala	Ala
		115					120						125		
Lys	Ile	Lys	Glu	Trp	Val	Thr	Val	Lys	Leu	Asn	Glu	Leu	Glu	Leu	Glu
	130					135					140				
Asn	Gln	Asn	Leu	Arg	Leu	Ile	Asn	Gln	Asn	Gln	Thr	Glu	Glu	Ile	Arg
145				150					155					160	
Thr	Met	Gln	Ser	Lys	Leu	Gln	Val	Gln	Gly	Lys	Lys	Ser	Ser	Thr	Val
				165					170					175	
Ser	Thr	Leu	Lys	Leu	Ser	Glu	Gly	Gln	Arg	Leu	Ser	Ser	Leu	Thr	Phe
		180						185					190		
Gly	Cys	Phe	Leu	Ser	Arg	Ala	Arg	Ser	Pro	Pro	Gln	Val	Val	Lys	Ser

195	200	205
Glu Glu Met Ser Lys Ile Ser Ser Lys Glu Pro Glu Phe Thr Glu Gly		
210	215	220
Lys Asp Met Glu Glu Met Glu Ile Pro Glu Lys Ser Val Asp Asn Gln		
225	230	235
Val Leu Glu Asn Asn Arg Gly Gln Arg Thr Leu His Gln Thr Pro Cys		
245	250	255
Gly Ser Glu Gln Asn Arg Lys Thr Arg Thr Ser Phe Ala Thr Asp Gly		
260	265	270
Gly Ile Ser Gln Asn Ser Gly Ala Pro Val Ser Asp Trp Ser Ser Asp		
275	280	285
Glu Glu Asp Gly Ser Arg Gly Arg Ser Lys Ser Arg Cys Thr Ser Thr		
290	295	300
Leu Ser Ser His Thr Ser Glu Glu Gly Val Gln Cys Ser Arg Met Gly		
305	310	315
Ser Glu Met Tyr Leu Thr Ala Ser Asp Asp Ser Ser Ser Ile Phe Glu		
325	330	335
Glu Glu Thr Phe Gly Ile Lys Arg Pro Glu His Lys Lys Leu Tyr Ser		
340	345	350
Trp Gln Gln Glu Ala Gln Trp Lys Ala Leu Asn Ser Pro Leu Gly Lys		
355	360	365
Gly Asn Ser Glu Leu Ser Lys Lys Glu Gln Asp Ser Ser Ser Asp Glu		
370	375	380
Leu Asn Lys Lys Phe Gln Ser Gln Arg Leu Asp Tyr Ser Ser Ser Ser		
385	390	395
Ser Glu Ala Asn Thr Pro Ser Pro Ile Leu Thr Pro Ala Leu Met Pro		
405	410	415
Lys His Pro Asn Ser Leu Ser Gly Lys Gly Thr Gln Leu Val Pro Ser		
420	425	430

Ser His Leu Pro Pro Pro Lys Leu Arg Ile Pro Asn Val Phe Ser Ile

435

440

445

Ser Val Ala Leu Ala Lys Arg His Leu Ser Gln Pro Gln Leu Ser Ser

450

455

460

Asp Arg Met Phe Gly Thr Asn Arg Asn Ala Ile Ser Met Ile Arg Pro

465

470

475

480

Leu Arg Pro Gln Glu Thr Asp Leu Asp Leu Val Asp Gly Asp Ser Thr

485

490

495

Glu Val Leu Glu Asn Met Asp Thr Ser Cys Asp Asp Gly Leu Phe Ser

500

505

510

Tyr Asp Ser Leu Asp Ser Pro Asn Ser Asp Asp Gln Glu His Cys Asp

515

520

525

Pro Ala Lys Lys Val Ala Tyr Ser Lys Pro Pro Thr Pro Pro Leu His

530

535

540

Arg Phe Pro Ser Trp Glu Ser Arg Ile Tyr Ala Val Ala Lys Ser Gly

545

550

555

560

Ile Arg Met Ser Glu Ala Phe Asn Met Glu Ser Val Asn Lys Asn Ser

565

570

575

Ala Ala Thr Leu Ser Tyr Thr Thr Ser Gly Leu Tyr Thr Ser Leu Ile

580

585

590

Tyr Lys Asn Met Thr Thr Pro Val Tyr Thr Thr Leu Arg Gly Arg Arg

595

600

605

Pro Lys

610

&lt;210&gt; 4206

&lt;211&gt; 105

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4206

Met Gly Gly Leu Leu Thr Pro Gly Leu Trp Cys Cys Arg Gln Pro Ser  
1 5 10 15  
Pro Val Tyr Thr Ala Thr Gln Pro Gln Ala Val Gly Ser Gln Trp Pro  
20 25 30  
Gly Gly Lys Gln Leu His Ser Pro Ala Leu Pro Gly Cys Pro Phe Gly  
35 40 45  
Phe Gln Pro Gly Ser Arg Pro Ala Ser Thr Gly Lys Pro Val Thr Glu  
50 55 60  
Ala Trp Thr Gln Arg Trp Thr Arg His Leu Leu Ala Thr Cys Asp Leu  
65 70 75 80  
Gly Arg Ser Glu Ser Val Ala Arg Ser Thr Cys Ser Ala Ala Ala Ile  
85 90 95  
Asn Ser Leu Pro Val Ser Lys Arg Arg  
100 105

<210> 4207

<211> 466

<212> PRT

<213> Homo sapiens

<400> 4207

Met Ala Leu Ala Gly Thr Gln Val Gly Pro Pro Pro Gln Glu Arg Ala  
1 5 10 15  
Pro Glu Pro Ile Gly Arg Ala Trp Gly Pro Pro Gly Ile Thr Gln Pro  
20 25 30

Ser Ala Pro Gly Ala Thr Val Gly Arg Arg Val Ser Val Ala Ala Gly  
 35 40 45  
 Pro Trp Leu His Gly Pro His Gly Ser Cys Glu Trp Val Arg Leu Pro  
 50 55 60  
 Gly Ser Gly Asp Arg Gln Arg Thr Asp Pro Arg Leu Gly Ser Trp Arg  
 65 70 75 80  
 Glu Gly Arg Arg Gly Ala Gly Gln Pro Gly Ser Asp Thr Val Ser Ser  
 85 90 95  
 Ser Gly Arg Arg Arg Pro Ala Gly Ser Thr Gln Ala Gly Arg Gly Trp  
 100 105 110  
 Ala Ser Leu Glu Pro Ala Thr Ala Leu Val Gly Thr Trp Arg Arg Ala  
 115 120 125  
 His Val Ser Pro His Ala Ser His Arg Gly Ala Leu Ala Arg Arg Pro  
 130 135 140  
 Ala Arg Gly Ala Cys Ala Trp Asp Gly Ser Gln Asn Gln Arg Ala Pro  
 145 150 155 160  
 Val Arg Leu Ala Ser Thr Val Gly Leu Trp Glu Ser Leu Leu Phe Ile  
 165 170 175  
 Phe Lys His Leu Gly Phe Ser Thr Gly Ser Trp Leu Leu Phe Pro Gln  
 180 185 190  
 Gly Met Ser Leu Arg Ser Arg Thr Arg Trp Gly Ser Gln Glu Ala Ala  
 195 200 205  
 Ala Gln Ser Leu His Ala Gly Lys Gly Ser His Leu Ser Gly Val Gly  
 210 215 220  
 Ser Leu Val Val Gln Gly Ser Ala Gly Gln Ser Leu Gly Cys Ala Ile  
 225 230 235 240  
 Thr Ala Thr Ala Phe Leu Leu Gly Ala Ser Thr Ser Ser Lys Thr Gly  
 245 250 255  
 Leu Val Pro Ala Pro Pro Ala Ala Ser Gly Gln Gly His Glu Gly Arg

260 265 270  
Ala Leu Ser Thr Trp Ala Gly Gly Thr Leu Pro Gly Gly Thr Glu Gly  
275 280 285  
Ala Pro Thr Trp Ala Pro Ala Ser Cys Pro Ser Leu Leu Pro Pro Arg  
290 295 300  
Ala Arg Trp Gly Pro Gly Phe Glu Glu Pro Arg Thr Arg Ala Leu Pro  
305 310 315 320  
Ala Gly Ser Trp Arg Arg Ala Ser Gly Leu Gly Asn Arg Gly Arg Lys  
325 330 335  
Asn Ser Ser Arg Pro Gly Thr Lys Gly Ala Ser Gly Arg Thr His Gly  
340 345 350  
Trp Pro Arg Ala Arg Gly Val Thr Ala Gly Arg Pro Pro Gly Pro Gly  
355 360 365  
Pro Val Arg Gly Gln Tyr Gly Asp Pro Ala Cys Arg Trp Gln Ser Val  
370 375 380  
Leu Cys Val Trp Gly Pro Gln His Arg Leu Gly Gly Gly Trp Gly Arg  
385 390 395 400  
Gly Ser Arg Ser Gly Gln Gly Leu Gly Gly Ser Gly Thr Gly Arg Gly  
405 410 415  
Glu Gln Thr Gly Ser Ser Ser Gly His His Pro Gly Thr Ala Ala Pro  
420 425 430  
Thr Arg Ala Ala Pro His Pro Trp Pro Arg Ser Pro Gly Thr Ala Gly  
435 440 445  
Pro Gly Val Ser Glu Gly Leu Ser Arg Ala Gly Thr Asp Gln Trp Ser  
450 455 460  
Pro Gly  
465



&lt;210&gt; 4208

&lt;211&gt; 612

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4208

Met Leu Leu Phe Arg Asp Cys Glu Glu Ala Thr Asp Phe Leu Thr Cys

1 5 10 15

His Gly Leu Thr Val Ser Asp Gly Cys Val Glu Leu Asn Arg Ser Ala

20 25 30

Phe Leu Glu Pro Glu Gly Leu Ser Lys Thr Arg Lys Ser Val Phe Ile

35 40 45

Thr Arg Lys Leu Thr Val Ser Val Gly Glu Ile Val Asn Gly Gly Pro

50 55 60

Leu Pro Pro Val Pro Arg His Thr Pro Val Cys Ser Phe Asn Ser Gln

65 70 75 80

Asn Lys Tyr Ile Gly Glu Ser Leu Ala Ala Glu Leu Pro Val Ser Thr

85 90 95

Gln Arg Pro Gly Ser Asp Thr Val Gly Gly Gly Arg Gly Glu Glu Cys

100 105 110

Gly Val Glu Pro Asp Ala Pro Leu Ser Ser Leu Pro Gln Ser Leu Pro

115 120 125

Ala Pro Ala Pro Ser Pro Val Pro Leu Pro Pro Val Leu Ala Leu Thr

130 135 140

Pro Ser Val Ala Pro Ser Leu Phe Gln Leu Ser Val Gln Pro Glu Pro

145 150 155 160

Pro Pro Pro Glu Pro Val Pro Met Tyr Ser Asp Glu Asp Leu Ala Gln

165 170 175

Val Val Asp Glu Leu Ile Gln Glu Ala Leu Gln Arg Asp Cys Glu Glu

180	185	190
Val Gly Ser Ala Gly Ala Ala Tyr Ala Ala Ala Ala Leu Gly Val Ser		
195	200	205
Asn Ala Ala Met Glu Asp Leu Leu Thr Ala Ala Thr Thr Gly Ile Leu		
210	215	220
Arg His Ile Ala Ala Glu Glu Val Ser Lys Glu Arg Glu Arg Arg Glu		
225	230	235
Gln Glu Arg Gln Arg Ala Glu Glu Glu Arg Leu Lys Gln Glu Arg Glu		
245	250	255
Leu Val Leu Ser Glu Leu Ser Gln Gly Leu Ala Val Glu Leu Met Glu		
260	265	270
Arg Val Met Met Glu Phe Val Arg Glu Thr Cys Ser Gln Glu Leu Lys		
275	280	285
Asn Ala Val Glu Thr Asp Gln Arg Val Arg Val Ala Arg Cys Cys Glu		
290	295	300
Asp Val Cys Ala His Leu Val Asp Leu Phe Leu Val Glu Glu Ile Phe		
305	310	315
Gln Thr Ala Lys Glu Thr Leu Gln Glu Leu Gln Cys Phe Cys Lys Tyr		
325	330	335
Leu Gln Arg Trp Arg Glu Ala Val Thr Ala Arg Lys Lys Leu Arg Arg		
340	345	350
Gln Met Arg Ala Phe Pro Ala Ala Pro Cys Cys Val Asp Val Ser Asp		
355	360	365
Arg Leu Arg Ala Leu Ala Pro Ser Ala Glu Cys Pro Ile Ala Glu Glu		
370	375	380
Asn Leu Ala Arg Gly Leu Leu Asp Leu Gly His Ala Gly Arg Leu Gly		
385	390	395
Ile Ser Cys Thr Arg Leu Arg Arg Leu Arg Asn Lys Thr Ala His Gln		
405	410	415

Met Lys Val Gln His Phe Tyr Gln Gln Leu Leu Ser Asp Val Ala Trp

420

425

430

Ala Ser Leu Asp Leu Pro Ser Leu Val Ala Glu His Leu Pro Gly Arg

435

440

445

Gln Glu His Val Phe Trp Lys Leu Val Leu Val Leu Pro Asp Val Glu

450

455

460

Glu Gln Ser Pro Glu Ser Cys Gly Arg Ile Leu Ala Asn Trp Leu Lys

465

470

475

480

Val Lys Phe Met Gly Asp Glu Gly Ser Val Asp Asp Thr Ser Ser Asp

485

490

495

Ala Gly Gly Ile Gln Thr Leu Ser Leu Phe Asn Ser Leu Ser Ser Lys

500

505

510

Gly Asp Gln Met Ile Ser Val Asn Val Cys Ile Lys Val Ala His Gly

515

520

525

Ala Leu Ser Asp Gly Ala Ile Asp Ala Val Glu Thr Gln Lys Asp Leu

530

535

540

Leu Gly Ala Ser Gly Leu Met Leu Leu Leu Pro Pro Lys Met Lys Ser

545

550

555

560

Glu Asp Met Ala Glu Glu Asp Val Tyr Trp Leu Ser Ala Leu Leu Gln

565

570

575

Leu Lys Gln Leu Leu Gln Ala Lys Pro Phe Gln Pro Ala Leu Pro Leu

580

585

590

Val Val Leu Val Pro Ser Pro Gly Gly Asp Ala Val Glu Lys Glu Val

595

600

605

Glu Asp Gly Leu

610

&lt;210&gt; 4209

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4209

Met Ala Ser Met Gly Leu Gln Val Met Gly Ile Ala Leu Ala Val Leu

1 5 10 15

Gly Trp Leu Ala Val Met Leu Cys Cys Ala Leu Pro Met Trp Arg Val

20 25 30

Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ser Gln Thr Ile Trp Glu

35 40 45

Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys

50 55 60

Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala

65 70 75 80

Arg Ala Leu Val Ile Ile Ser Ile Ile Val Ala Ala Leu Gly Val Leu

85 90 95

Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser

100 105 110

Ala Lys Ala Lys Thr Met Ile Val Ala Gly Val Val Phe Leu Leu Ala

115 120 125

Gly Leu Met Val Ile Val Pro Val Ser Trp Thr Ala His Asn Ile Ile

130 135 140

Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met

145 150 155 160

Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu

165 170 175

Gly Gly Gly Leu Leu Cys Cys Asn Cys Pro Pro Arg Thr Asp Lys Pro

180 185 190

Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr

195

200

205

Val

<210> 4210

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4210

Met Ser Cys Thr Ile Glu Lys Ile Leu Thr Asp Ala Lys Thr Leu Leu

1

5

10

15

Glu Arg Leu Arg Glu His Asp Ala Ala Ala Glu Ser Leu Val Asp Gln

20

25

30

Ser Ala Ala Leu His Arg Arg Val Ala Ala Met Arg Glu Ala Gly Thr

35

40

45

Ala Leu Pro Asp Gln Val Arg Gln Arg Tyr Gln Glu Asp Ala Ser Asp

50

55

60

Met Lys Asp Met Ser Lys Tyr Lys Pro His Ile Leu Leu Ser Gln Glu

65

70

75

80

Asn Thr Gln Ile Arg Asp Leu Gln Gln Glu Asn Arg Glu Leu Trp Ile

85

90

95

Ser Leu Glu Glu His Gln Asp Ala Leu Glu Leu Ile Met Ser Lys Tyr

100

105

110

Arg Lys Gln Met Leu Gln Leu Met Val Ala Lys Lys Ala Val Asp Ala

115

120

125

Glu Pro Val Leu Lys Ala His Gln Ser His Ser Ala Glu Ile Glu Ser

130                      135                      140  
 Gln Ile Asp Arg Ile Cys Glu Met Gly Glu Val Met Arg Lys Ala Val  
 145                      150                      155                      160  
 Gln Val Asp Asp Asp Gln Phe Cys Lys Ile Gln Glu Lys Leu Ala Gln  
                          165                      170                      175  
 Leu Glu Leu Glu Asn Lys Glu Leu Arg Glu Leu Leu Ser Ile Ser Ser  
                          180                      185                      190  
 Glu Ser Leu Gln Ala Arg Lys Glu Asn Ser Met Asp Thr Ala Ser Gln  
                          195                      200                      205  
 Ala Ile Lys  
 210

<210> 4211

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4211

Met Cys Tyr Leu Leu Leu Leu Leu Ile Gln Thr Ala Glu Leu Leu Ile  
     1                      5                      10                      15  
 His Pro Gln Gly Leu Gln Ala Val Ser Asn Gly Glu Ser Ala Leu Lys  
                          20                      25                      30  
 Gly Thr Arg Pro Thr Phe Ser Ser Pro Phe Ile Leu Val Thr Glu Gly  
                          35                      40                      45  
 Arg Lys Glu Trp Glu Gly Val Phe Leu Ser Ser Gly Trp Lys Gly Asn  
                          50                      55                      60  
 Thr Leu Ser Asn Tyr Tyr Ile Ser Leu Val Phe Tyr Tyr Ser Arg Ile  
                          65                      70                      75                      80

Leu Gln Pro Tyr Phe Tyr Cys Leu Trp Gly Lys Leu Glu Met Val Thr  
                     85                    90                    95  
 Leu Ile Arg Ser Val Trp Arg Gly Ile Asn Gly Gly Asp Lys Ile Gln  
                     100                    105                    110  
 Leu Val Leu Glu Asn Val Lys Val Leu Lys  
                     115                    120

<210> 4212

<211> 1082

<212> PRT

<213> Homo sapiens

<400> 4212

Met Ala Pro Glu Asp Lys Asp Pro Asp Leu Glu Thr Ile Leu Asn Ile  
   1                    5                    10                    15  
 Pro Ser Ala Leu Thr Pro Thr Val Val Pro Val Ile Val Thr Val Pro  
                     20                    25                    30  
 Gln Ser Lys Ala Lys Gly Lys Ile Lys Gly Lys Glu Lys Pro Lys Glu  
                     35                    40                    45  
 Ser Leu Lys Glu Glu Glu His Pro Lys Glu Glu Glu Lys Lys Glu Glu  
                     50                    55                    60  
 Glu Val Glu Pro Glu Pro Val Leu Gln Glu Thr Leu Asp Val Pro Thr  
   65                    70                    75                    80  
 Phe Gln Ser Leu Asn Val Ser Cys Pro Ser Gly Leu Leu Leu Thr Phe  
                     85                    90                    95  
 Ile Gly Gln Glu Ser Thr Gly Gln Tyr Val Ile Asp Glu Glu Pro Thr  
                     100                    105                    110  
 Trp Asp Ile Met Val Arg Gln Ser Tyr Pro Gln Arg Val Lys His Tyr

115	120	125
Glu Phe Tyr Lys Thr Val Met Pro Pro Ala Glu Gln Glu Ala Ser Arg		
130	135	140
Val Ile Thr Ser Gln Gly Thr Val Val Lys Tyr Met Leu Asp Gly Ser		
145	150	155
Thr Gln Ile Leu Phe Ala Asp Gly Ala Val Ser Arg Ser Pro Asn Ser		
165	170	175
Gly Leu Ile Cys Pro Pro Ser Glu Met Pro Ala Thr Pro His Ser Gly		
180	185	190
Asp Leu Met Asp Ser Ile Ser Gln Gln Lys Ser Glu Thr Ile Pro Ser		
195	200	205
Glu Ile Thr Asn Thr Lys Lys Gly Lys Ser His Lys Ser Gln Ser Ser		
210	215	220
Met Ala His Lys Gly Glu Ile His Asp Pro Pro Pro Glu Ala Val Gln		
225	230	235
Thr Val Thr Pro Val Glu Val His Ile Gly Thr Trp Phe Thr Thr Thr		
245	250	255
Pro Glu Gly Asn Arg Ile Gly Thr Lys Gly Leu Glu Arg Ile Ala Asp		
260	265	270
Leu Thr Pro Leu Leu Ser Phe Gln Ala Thr Asp Pro Val Asn Gly Thr		
275	280	285
Val Met Thr Thr Arg Glu Asp Lys Val Val Ile Val Glu Arg Lys Asp		
290	295	300
Gly Thr Arg Ile Val Asp His Ala Asp Gly Thr Arg Ile Thr Thr Phe		
305	310	315
Tyr Gln Val Tyr Glu Asp Gln Ile Ile Leu Pro Asp Asp Gln Glu Thr		
325	330	335
Thr Glu Gly Pro Arg Thr Val Thr Arg Gln Val Lys Cys Met Arg Val		
340	345	350



Glu Ser Ser Arg Tyr Ala Thr Val Ile Ala Asn Cys Glu Asp Ser Ser  
355 360 365  
Cys Cys Ala Thr Phe Gly Asp Gly Thr Thr Ile Ile Ala Lys Pro Gln  
370 375 380  
Gly Thr Tyr Gln Val Leu Pro Pro Asn Thr Gly Ser Leu Tyr Ile Asp  
385 390 395 400  
Lys Asp Cys Ser Ala Val Tyr Cys His Glu Ser Ser Ser Asn Ile Tyr  
405 410 415  
Tyr Pro Phe Gln Lys Arg Glu Gln Leu Arg Ala Gly Arg Tyr Ile Met  
420 425 430  
Arg His Thr Ser Glu Val Ile Cys Glu Val Leu Asp Pro Glu Gly Asn  
435 440 445  
Thr Phe Gln Val Met Ala Asp Gly Ser Ile Ser Thr Ile Leu Pro Glu  
450 455 460  
Lys Lys Leu Glu Asp Asp Leu Asn Glu Lys Thr Glu Gly Tyr Asp Ser  
465 470 475 480  
Leu Ser Ser Met His Leu Glu Lys Asn His Gln Gln Ile Tyr Gly Glu  
485 490 495  
His Val Pro Arg Phe Phe Val Met Tyr Ala Asp Gly Ser Gly Met Glu  
500 505 510  
Leu Leu Arg Asp Ser Asp Ile Glu Glu Tyr Leu Ser Leu Ala Tyr Lys  
515 520 525  
Glu Ser Asn Thr Val Val Leu Gln Glu Pro Val Gln Glu Gln Pro Gly  
530 535 540  
Thr Leu Thr Ile Thr Val Leu Arg Pro Phe His Glu Ala Ser Pro Trp  
545 550 555 560  
Gln Val Lys Lys Glu Asp Thr Ile Val Pro Pro Asn Leu Arg Ser Arg  
565 570 575  
Ser Trp Glu Thr Phe Pro Ser Val Glu Lys Lys Thr Pro Gly Pro Pro

580 585 590  
Phe Gly Thr Gln Ile Trp Lys Gly Leu Cys Ile Glu Ser Lys Gln Leu  
595 600 605  
Val Ser Ala Pro Gly Ala Ile Leu Lys Ser Pro Ser Val Leu Gln Met  
610 615 620  
Arg Gln Phe Ile Gln His Glu Val Ile Lys Asn Glu Val Lys Leu Arg  
625 630 635 640  
Leu Gln Val Ser Leu Lys Asp Tyr Ile Asn Tyr Ile Leu Lys Lys Glu  
645 650 655  
Asp Glu Leu Gln Glu Met Met Ala Lys Asp Ser Arg Thr Glu Glu Glu  
660 665 670  
Arg Gly Asn Ala Ala Asp Leu Leu Lys Leu Val Met Ser Phe Pro Lys  
675 680 685  
Met Glu Glu Thr Thr Lys Ser His Val Thr Glu Val Ala Ala His Leu  
690 695 700  
Thr Asp Leu Phe Lys Gln Ser Leu Ala Thr Pro Pro Lys Cys Pro Pro  
705 710 715 720  
Asp Thr Phe Gly Lys Asp Phe Phe Glu Lys Thr Trp Arg His Thr Ala  
725 730 735  
Ser Ser Lys Arg Trp Lys Glu Lys Ile Asp Lys Thr Arg Lys Glu Ile  
740 745 750  
Glu Thr Thr Gln Asn Tyr Leu Met Asp Ile Lys Asn Arg Ile Ile Pro  
755 760 765  
Pro Phe Phe Lys Ser Glu Leu Asn Gln Leu Tyr Gln Ser Gln Tyr Asn  
770 775 780  
His Leu Asp Ser Leu Ser Lys Lys Leu Pro Ser Phe Thr Lys Lys Asn  
785 790 795 800  
Glu Asp Ala Asn Glu Thr Ala Val Gln Asp Thr Ser Asp Leu Asn Leu  
805 810 815

Asp Phe Lys Pro His Lys Val Ser Glu Gln Lys Ser Ser Gly Val Pro  
 820 825 830  
 Ser Leu Pro Lys Pro Glu Ile Ser Ala Asp Lys Lys Asp Phe Thr Ala  
 835 840 845  
 Gln Asn Gln Thr Glu Asn Leu Thr Lys Ser Pro Glu Glu Ala Glu Ser  
 850 855 860  
 Tyr Glu Pro Val Lys Ile Pro Thr Gln Ser Leu Leu Gln Asp Val Ala  
 865 870 875 880  
 Gly Gln Thr Arg Lys Glu Lys Val Lys Leu Pro His Tyr Leu Leu Ser  
 885 890 895  
 Ser Lys Pro Lys Ser Gln Pro Leu Ala Lys Val Gln Asp Ser Val Gly  
 900 905 910  
 Gly Lys Val Asn Thr Ser Ser Val Ala Ser Ala Ala Ile Asn Asn Ala  
 915 920 925  
 Lys Ser Ser Leu Phe Gly Phe His Leu Leu Pro Ser Ser Val Lys Phe  
 930 935 940  
 Gly Val Leu Lys Glu Gly His Thr Tyr Ala Thr Val Val Lys Leu Lys  
 945 950 955 960  
 Asn Val Gly Val Asp Phe Cys Arg Phe Lys Val Lys Gln Pro Pro Pro  
 965 970 975  
 Ser Thr Gly Leu Lys Val Thr Tyr Lys Pro Gly Pro Val Ala Ala Gly  
 980 985 990  
 Met Gln Thr Glu Leu Asn Ile Glu Leu Phe Ala Thr Ala Val Gly Glu  
 995 1000 1005  
 Asp Gly Ala Lys Gly Ser Ala His Ile Ser His Asn Ile Glu Ile Met  
 1010 1015 1020  
 Thr Glu His Glu Val Leu Phe Leu Pro Val Glu Ala Thr Val Leu Thr  
 1025 1030 1035 1040  
 Ser Ser Asn Tyr Asp Lys Arg Pro Lys Asp Phe Pro Gln Gly Lys Glu

	1045		1050		1055											
Asn	Pro	Met	Val	Gln	Arg	Thr	Ser	Thr	Ile	Tyr	Ser	Ser	Thr	Leu	Gly	
	1060		1065		1070											
Val	Phe	Met	Ser	Arg	Lys	Val	Ser	Pro	His							
	1075		1080													

&lt;210&gt; 4213

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4213

Met	Glu	Phe	Gly	Leu	Ser	Trp	Val	Phe	Leu	Val	Ala	Ile	Leu	Lys	Gly
1				5					10					15	
Val	Gln	Cys	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Ala	Leu	Val	Gln
			20					25					30		
Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys	Lys	Ser	Ser	Gly	Phe	Thr	Phe
			35				40					45			
Gly	Asp	Tyr	Gly	Ile	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu
	50					55					60				
Glu	Trp	Val	Gly	Phe	Ile	Arg	Asn	Lys	Ala	Phe	Gly	Gly	Thr	Thr	Ile
65					70				75					80	
Tyr	Ala	Ala	Ser	Val	Glu	Gly	Arg	Phe	Ser	Ile	Ser	Arg	Asp	Asp	Ser
				85					90				95		
Lys	Gly	Val	Ala	Tyr	Leu	Gln	Met	Ser	Ser	Leu	Gln	Thr	Glu	Asp	Thr
			100						105				110		
Ala	Val	Tyr	Tyr	Cys	Thr	Arg	Asp	Ile	Phe	Val	Thr	Gly	Ile	Tyr	His
			115					120					125		

Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser  
 130 135 140  
 Gly Glu Ser Ser Gln Pro Leu Ser Cys Phe Gln Ser Glu Gly Phe His  
 145 150 155 160  
 Tyr Ile Phe Gly Gly Lys Tyr Val Cys Trp Val Ser Cys Gln Lys Ser  
 165 170 175  
 Arg Gly Thr Val Gly Gly Ala Arg Glu Asn Val Leu Arg Gln Arg Arg  
 180 185 190  
 Pro Asn Arg Arg Val Pro Arg Ala Pro Asp Val Pro Ser Ser Ser Ala  
 195 200 205  
 Gln Gln His Gly Ser Val Cys Gly Gln Gly His Pro Gly Pro Leu Gly  
 210 215 220  
 Ser His Ala Gln Gln Pro Pro Gly Pro Pro Arg Val Gln Ser Glu Arg  
 225 230 235 240  
 Val Pro Gly Thr Glu Arg Gly Ala Ser Ser Cys Leu Arg Ser  
 245 250

<210> 4214

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4214

Met Pro Ser Pro Pro Thr Ala Ser Leu Leu Met Gln Gly Ser Gln Pro  
 1 5 10 15  
 His Pro Arg Ala Leu His Ile Arg Phe His Ser Cys Lys Tyr Asn Gly  
 20 25 30  
 Pro Pro Ser Val Leu Gln Ile Ser Pro Ala His His Trp Ala Ser Arg

35                      40                      45  
 Ala Ala Ala Cys Pro Leu Leu Arg His Leu Ala Gly Gly Ser Leu Pro  
 50                      55                      60  
 Cys Ser Pro Cys Gly Arg Asp Pro Arg Ala Leu Val Pro Ala Cys His  
 65                      70                      75                      80  
 Ser Pro Cys Cys Ile Ser Leu Pro Pro Leu Pro Glu Glu Phe Leu Leu  
 85                      90                      95  
 Arg Ala Cys Ser Leu Asn Trp  
 100

<210> 4215

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4215

Met Leu Lys Phe Ser Leu Val Phe Leu Phe Phe Leu Phe Phe Pro Arg  
 1                      5                      10                      15  
 Arg Ser Leu Ala Leu Ser Pro Arg Leu Glu Tyr Asn Gly Met Ile Ser  
 20                      25                      30  
 Thr His Cys Asn Leu His Leu Leu Gly Ser Ser Asp Ser Pro Ala Ser  
 35                      40                      45  
 Ala Ser Arg Val Ala Arg Ile Thr Gly Ala His His Asn Val Trp Pro  
 50                      55                      60  
 Ile Phe Cys Ile Phe Ser Arg Asp Arg Val Ser Pro Cys Trp Pro Gly  
 65                      70                      75                      80  
 Trp Ser Ile Thr Pro Asp Leu Val Ile Cys Leu Pro Gln Pro Pro Lys  
 85                      90                      95

Val Leu Gly Leu Gln Ala

100

<210> 4216

<211> 762

<212> PRT

<213> Homo sapiens

<400> 4216

Met His Asn Leu Ile Phe Gln Met Tyr Asp Glu Gly Glu Arg Glu Ile

1

5

10

15

Asn Ile Thr Ser Ala Leu Ala Glu Lys Ile Lys Val Asn Trp Thr Pro

20

25

30

Glu Ile Asn Lys Glu His Leu Leu Gln Gly Leu Leu Pro Asp Val Gln

35

40

45

Val Pro Thr Ser Val Lys Asp Met Arg Tyr Cys Gln Val Ser Phe Gln

50

55

60

Asp Asp His Val Ser Leu Glu Ser Ala Phe Thr Val Arg Pro Leu Pro

65

70

75

80

Asp Glu Pro Lys His Leu Lys Cys Glu Met Lys Gly Gly Lys Thr Val

85

90

95

Gln Met Gly Gln Glu Leu Gln Gly Glu Val Val Ile Ile Ile Thr Asp

100

105

110

Gln Tyr Gly Asn Gln Ile Gln Ala Phe Ser Pro Ser Ser Leu Ser Ser

115

120

125

Leu Ser Ile Ala Gly Val Gly Leu Asp Ser Ser Asn Leu Lys Thr Thr

130

135

140

Phe Gln Glu Asn Thr Gln Ser Ile Ser Val Arg Gly Ile Lys Phe Ile

145                      150                      155                      160  
Pro Gly Pro Pro Gly Asn Lys Asp Leu Cys Phe Thr Trp Arg Glu Phe  
                                 165                      170                      175  
Ser Asp Phe Ile Arg Val Gln Leu Ile Ser Gly Pro Pro Ala Lys Leu  
                                 180                      185                      190  
Leu Leu Ile Asp Trp Pro Glu Leu Lys Glu Ser Ile Pro Val Ile Asn  
                                 195                      200                      205  
Gly Arg Asp Leu Gln Asn Pro Ile Ile Val Gln Leu Cys Asp Gln Trp  
                                 210                      215                      220  
Asp Asn Pro Ala Pro Val Gln His Val Lys Ile Ser Leu Thr Lys Ala  
225                      230                      235                      240  
Ser Asn Leu Lys Leu Met Pro Ser Asn Gln Gln His Lys Thr Asp Glu  
                                 245                      250                      255  
Lys Gly Arg Ala Asn Leu Gly Val Phe Ser Val Phe Ala Pro Arg Gly  
                                 260                      265                      270  
Glu His Thr Leu Gln Val Lys Ala Ile Tyr Asn Lys Ser Ile Ile Glu  
                                 275                      280                      285  
Gly Pro Ile Ile Lys Leu Met Ile Leu Pro Asp Pro Glu Lys Pro Val  
                                 290                      295                      300  
Arg Leu Asn Val Lys Tyr Asp Lys Asp Ala Ser Phe Leu Ala Gly Gly  
305                      310                      315                      320  
Leu Phe Thr Asp Phe Met Ile Ser Val Ile Ser Glu Asp Asp Ser Ile  
                                 325                      330                      335  
Ile Lys Asn Ile Asn Pro Ala Arg Ile Ser Met Lys Met Trp Lys Leu  
                                 340                      345                      350  
Ser Thr Ser Gly Asn Arg Pro Pro Ala Asn Ala Glu Thr Phe Ser Cys  
                                 355                      360                      365  
Asn Lys Ile Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe Tyr Phe Arg  
                                 370                      375                      380



Asp Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile Gln Phe Gly  
385 390 395 400  
Phe Met Met Asp Lys Thr Asn Ile Leu Asn Ser Glu Gln Val Ile Val  
405 410 415  
Glu Val Leu Pro Asn Gln Pro Val Lys Leu Val Pro Lys Ile Lys Pro  
420 425 430  
Pro Thr Pro Ala Val Ser Asn Val Arg Ser Val Ala Ser Arg Thr Leu  
435 440 445  
Val Arg Asp Leu His Leu Ser Ile Thr Asp Asp Tyr Asp Asn His Thr  
450 455 460  
Gly Ile Asp Leu Val Gly Thr Ile Ile Ala Thr Ile Lys Gly Ser Asn  
465 470 475 480  
Glu Glu Asp Thr Asp Thr Pro Leu Phe Ile Gly Lys Val Arg Thr Leu  
485 490 495  
Glu Phe Pro Phe Val Asn Gly Ser Ala Glu Ile Met Ser Leu Val Leu  
500 505 510  
Ala Glu Ser Ser Pro Gly Arg Asp Ser Thr Glu Tyr Phe Ile Val Phe  
515 520 525  
Glu Pro Arg Leu Pro Leu Leu Ser Arg Thr Leu Glu Pro Tyr Ile Leu  
530 535 540  
Pro Phe Met Phe Tyr Asn Asp Val Lys Lys Gln Gln Gln Met Ala Ala  
545 550 555 560  
Leu Thr Lys Glu Lys Asp Gln Leu Ser Gln Ser Ile Val Met Tyr Lys  
565 570 575  
Ser Leu Phe Glu Ala Ser Gln Gln Leu Leu Asn Glu Met Lys Cys Gln  
580 585 590  
Val Glu Glu Ala Arg Leu Lys Glu Ala Gln Leu Arg Asn Glu Leu Lys  
595 600 605  
Ile His Asn Ile Asp Ile Pro Thr Thr Gln Gln Val Pro His Ile Glu

610 615 620  
Ala Leu Leu Lys Arg Lys Leu Ser Glu Gln Glu Glu Leu Lys Lys Lys  
625 630 635 640  
Pro Arg Arg Ser Cys Thr Leu Pro Asn Tyr Thr Lys Gly Ser Gly Asp  
645 650 655  
Val Leu Gly Lys Ile Ala His Leu Ala Gln Ile Glu Asp Asp Arg Ala  
660 665 670  
Ala Met Val Ile Ser Trp His Leu Ala Ser Asp Met Asp Cys Val Val  
675 680 685  
Thr Leu Thr Thr Asp Ala Ala Arg Arg Ile Tyr Asp Glu Thr Gln Gly  
690 695 700  
Arg Gln Gln Val Leu Pro Leu Asp Ser Ile Tyr Lys Lys Thr Leu Pro  
705 710 715 720  
Asp Trp Lys Arg Ser Leu Pro His Phe Arg Asn Gly Lys Leu Tyr Phe  
725 730 735  
Lys Pro Ile Gly Asp Pro Val Phe Ala Arg Asp Leu Leu Thr Phe Pro  
740 745 750  
Asp Asn Val Glu His Cys Glu Thr Gly Cys  
755 760

&lt;210&gt; 4217

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4217

Met Lys Cys Ile Pro Tyr Ser Val Leu Leu Lys Asp Leu Glu Met Arg

1

5

10

15

Asn Leu Arg Glu Leu Glu Asp Leu Ile Ile Glu Ala Val Tyr Thr Asp  
                     20                                    25                                    30  
 Ile Ile Gln Gly Lys Leu Asp Gln Arg Asn Gln Leu Leu Glu Val Asp  
                     35                                    40                                    45  
 Phe Cys Ile Gly Arg Asp Ile Arg Lys Lys Asp Ile Asn Asn Ile Val  
                     50                                    55                                    60  
 Lys Thr Leu His Glu Trp Cys Asp Gly Cys Glu Ala Val Leu Leu Gly  
                     65                                    70                                    75                                    80  
 Ile Glu Gln Gln Val Leu Arg Ala Asn Gln Tyr Lys Glu Asn His Asn  
                                     85                                    90                                    95  
 Arg Thr Gln Gln Gln Val Glu Ala Glu Ile Ala Cys Phe Gln Arg Glu  
                     100                                    105                                    110  
 Lys Arg Asp Val Pro Leu Leu Asn Leu Ile Thr Thr Ala Phe Phe Trp  
                     115                                    120                                    125  
 Leu Pro Thr Ser Arg Arg His Ser Lys Pro Pro His Pro Pro Arg Leu  
                     130                                    135                                    140  
 Arg Arg Trp Ser Ser Ser Trp Leu Asn Gly Ser Val Pro Leu Thr Leu  
                     145                                    150                                    155                                    160  
 Ser Arg Gly Ser Pro Pro Arg Arg Cys Pro Lys  
                                     165                                    170

&lt;210&gt; 4218

&lt;211&gt; 608

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4218

Met Arg His Thr Ser Glu Val Ile Cys Glu Val Leu Asp Pro Glu Gly

1	5	10	15
Asn Thr Phe Gln Val Met Ala Asp Gly Ser Ile Ser Thr Ile Leu Pro			
20	25	30	
Glu Lys Lys Leu Glu Asp Asp Leu Asn Glu Lys Thr Glu Gly Tyr Asp			
35	40	45	
Ser Leu Ser Ser Met His Leu Glu Lys Asn His Gln Gln Ile Tyr Gly			
50	55	60	
Glu His Val Pro Arg Phe Phe Val Met Tyr Ala Asp Gly Ser Gly Met			
65	70	75	80
Glu Leu Leu Arg Asp Ser Asp Ile Glu Glu Tyr Leu Ser Leu Ala Tyr			
85	90	95	
Lys Glu Ser Asn Thr Val Val Leu Gln Glu Pro Val Gln Glu Gln Pro			
100	105	110	
Gly Thr Leu Thr Ile Thr Val Leu Arg Pro Phe His Glu Ala Ser Pro			
115	120	125	
Trp Gln Val Lys Lys Glu Asp Thr Ile Val Pro Pro Asn Leu Arg Ser			
130	135	140	
Arg Ser Trp Glu Thr Phe Pro Ser Val Glu Lys Lys Thr Pro Gly Pro			
145	150	155	160
Pro Phe Gly Thr Gln Ile Trp Lys Gly Leu Cys Ile Glu Ser Lys Gln			
165	170	175	
Leu Val Ser Ala Pro Gly Ala Ile Leu Lys Ser Pro Ser Val Leu Gln			
180	185	190	
Met Arg Gln Phe Ile Gln His Glu Val Ile Lys Asn Glu Val Lys Leu			
195	200	205	
Arg Leu Gln Val Ser Leu Lys Asp Tyr Ile Asn Tyr Ile Leu Lys Lys			
210	215	220	
Glu Asp Glu Leu Gln Glu Met Met Val Lys Asp Ser Arg Thr Glu Glu			
225	230	235	240

Glu Arg Gly Asn Ala Ala Asp Leu Leu Lys Leu Val Met Ser Phe Pro  
245 250 255  
Lys Met Glu Glu Thr Thr Lys Ser His Val Thr Glu Val Ala Ala His  
260 265 270  
Leu Thr Asp Leu Phe Lys Gln Ser Leu Ala Thr Pro Pro Lys Cys Pro  
275 280 285  
Pro Asp Thr Phe Gly Lys Asp Phe Phe Glu Lys Thr Trp Arg His Thr  
290 295 300  
Ala Ser Ser Lys Arg Trp Lys Glu Lys Ile Asp Lys Thr Arg Lys Glu  
305 310 315 320  
Ile Glu Thr Thr Gln Asn Tyr Leu Met Asp Ile Lys Asn Arg Ile Ile  
325 330 335  
Pro Pro Phe Phe Lys Ser Glu Leu Asn Gln Leu Tyr Gln Ser Gln Tyr  
340 345 350  
Asn His Leu Asp Ser Leu Ser Lys Lys Leu Pro Ser Phe Thr Lys Lys  
355 360 365  
Asn Glu Asp Ala Asn Glu Thr Ala Val Gln Asp Thr Ser Asp Leu Asn  
370 375 380  
Leu Asp Phe Lys Pro His Lys Val Ser Glu Gln Lys Ser Ser Ser Val  
385 390 395 400  
Pro Ser Leu Pro Lys Pro Glu Ile Ser Ala Asp Lys Lys Asp Phe Thr  
405 410 415  
Ala Gln Asn Gln Thr Glu Asn Leu Thr Lys Ser Pro Glu Glu Ala Glu  
420 425 430  
Ser Tyr Glu Pro Val Lys Ile Pro Thr Gln Ser Leu Leu Gln Asp Val  
435 440 445  
Ala Gly Gln Thr Arg Lys Glu Lys Val Lys Leu Pro His Tyr Leu Leu  
450 455 460  
Ser Ser Lys Pro Lys Ser Gln Pro Leu Ala Lys Val Gln Asp Ser Val

465                      470                      475                      480  
 Gly Gly Lys Val Asn Thr Ser Ser Val Ala Ser Ala Ala Ile Asn Asn  
                          485                      490                      495  
 Ala Lys Ser Ser Leu Phe Gly Phe His Pro Leu Pro Ser Ser Val Lys  
                          500                      505                      510  
 Phe Gly Val Leu Lys Glu Gly His Thr Tyr Ala Thr Val Val Lys Leu  
                          515                      520                      525  
 Lys Asn Val Gly Val Asp Phe Cys Arg Phe Lys Val Lys Gln Pro Pro  
                          530                      535                      540  
 Pro Ser Thr Gly Leu Lys Val Thr Tyr Lys Pro Gly Pro Val Ala Ala  
 545                      550                      555                      560  
 Gly Met Gln Thr Glu Leu Asn Ile Glu Leu Phe Ala Thr Ala Val Gly  
                          565                      570                      575  
 Glu Asp Gly Ala Lys Gly Ser Ala His Ile Ser His Asn Ile Glu Ile  
                          580                      585                      590  
 Met Thr Glu His Glu Val Leu Phe Leu Pro Val Glu Ala Asn Ile Leu  
                          595                      600                      605

<210> 4219

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4219

Met Ser Cys Trp Val His Leu Pro Asp Gly Val Val Ala Gly Gln Arg  
   1                      5                      10                      15  
 Gly Phe Ser Leu Pro Ser Arg Gly Gly Arg Ala Glu Ala Pro Leu Thr  
                          20                      25                      30

Ser Arg Thr Arg Arg Leu Ala Gly Arg Gly Ala Asp Pro Pro Pro Pro  
 35 40 45  
 Pro Ser Arg Met Gly Arg Leu Ala Gly Arg Gly Ala Asp Pro Pro Pro  
 50 55 60  
 Pro Pro Ser Arg Thr Gly Arg Leu Ala Trp Arg Gly Leu Thr Pro Thr  
 65 70 75 80  
 Ser Leu Leu Asp Gly Val Ala Ala Gly Arg Arg Arg Ser Ser Pro Pro  
 85 90 95  
 Arg Arg Gly Gly Cys Arg Ala Asp Arg Leu Leu Thr Ser Gln Thr Gly  
 100 105 110  
 Arg Leu Pro Gly Gly Gly Ala Pro His Phe Leu Asp Gly Ala Val Ala  
 115 120 125  
 Arg Arg Arg Val Ser Ser Leu Leu Arg Trp Gly Gly Arg Ala Glu Thr  
 130 135 140  
 Leu Leu Thr Ser Gln Thr Gly Ser Arg Pro Gly Arg Gly Ala Pro His  
 145 150 155 160  
 Ile Pro Asp Gly Ala Ala Gly Gln Arg Arg Ser Pro His Leu Arg Arg  
 165 170 175  
 Trp Ala Ala Gly Gln Arg Arg Ser Ser Leu Pro Arg Trp Asp Gly Gly  
 180 185 190  
 Gly Ala Glu Thr Leu Leu Thr Phe Gln Thr Gly Gln Pro Gly Arg Gly  
 195 200 205  
 Ala Pro His Val Pro Asp Asp Gly Arg Pro Gly Arg Asp Ala Pro His  
 210 215 220  
 Phe Pro Asp Gly Val Ala Ala Gly Gln Arg Leu Gln Ser Arg His Phe  
 225 230 235 240  
 Gly Arg Pro Arg Gln Ala Gly Gly Arg Trp Arg Leu  
 245 250

&lt;210&gt; 4220

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4220

Met Leu Leu Val Ala Met Phe Gly Leu Trp Gly Asp Arg Cys Phe Leu

1 5 10 15

Phe Thr Ser Leu Cys Phe Leu Leu Phe Ser Ala Met Asn Phe Cys Phe

20 25 30

Ile Ile Arg Asn Asn Ser Arg Tyr Phe Lys Leu His Asn Glu Ile Asn

35 40 45

Asn Leu Gly His Thr Lys Phe Val Met Asp Ser Glu Leu Gln Gly Thr

50 55 60

Gly Gln Pro Tyr Gln Ala Gln Pro Pro Ser Pro Ala Ala Val Gly His

65 70 75 80

Arg Ile Leu Ser Lys Trp Val Gln Met Glu Ile Pro Val Gln Trp Leu

85 90 95

Tyr Ser Asp Val Asp

100

&lt;210&gt; 4221

&lt;211&gt; 343

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4221



Met Ile Gln Glu Pro Ala Leu Pro Pro Gly Trp Glu Met Lys Tyr Thr  
 1 5 10 15  
 Ser Glu Gly Val Arg Tyr Phe Val Asp His Asn Thr Arg Thr Thr Thr  
 20 25 30  
 Phe Lys Asp Pro Arg Pro Gly Phe Glu Ser Gly Thr Lys Gln Gly Ser  
 35 40 45  
 Pro Gly Ala Tyr Asp Arg Ser Phe Arg Trp Lys Tyr His Gln Phe Arg  
 50 55 60  
 Phe Leu Cys His Ser Asn Ala Leu Pro Ser His Val Lys Ile Ser Val  
 65 70 75 80  
 Ser Arg Gln Thr Leu Phe Glu Asp Ser Phe Gln Gln Ile Met Asn Met  
 85 90 95  
 Lys Pro Tyr Asp Leu Arg Arg Arg Leu Phe Ile Ile Met Arg Gly Glu  
 100 105 110  
 Glu Gly Leu Asp Tyr Gly Gly Ile Ala Arg Glu Trp Phe Phe Leu Leu  
 115 120 125  
 Ser His Glu Val Leu Asn Pro Met Tyr Cys Leu Phe Glu Tyr Ala Gly  
 130 135 140  
 Lys Asn Asn Tyr Cys Leu Gln Ile Asn Pro Ala Ser Ser Ile Asn Pro  
 145 150 155 160  
 Asp His Leu Thr Tyr Phe Arg Phe Ile Gly Arg Phe Ile Ala Met Ala  
 165 170 175  
 Leu Tyr His Gly Lys Phe Ile Asp Thr Gly Phe Thr Leu Pro Phe Tyr  
 180 185 190  
 Lys Arg Met Leu Asn Lys Arg Pro Thr Leu Lys Asp Leu Glu Ser Ile  
 195 200 205  
 Asp Pro Glu Phe Tyr Asn Ser Ile Val Trp Ile Lys Glu Asn Asn Leu  
 210 215 220  
 Glu Glu Cys Gly Leu Glu Leu Tyr Phe Ile Gln Asp Met Glu Ile Leu

225                      230                      235                      240  
 Gly Lys Val Thr Thr His Glu Leu Lys Glu Gly Gly Glu Ser Ile Arg  
                          245                      250                      255  
 Val Thr Glu Glu Asn Lys Glu Glu Tyr Ile Met Leu Leu Thr Asp Trp  
                          260                      265                      270  
 Arg Phe Thr Arg Gly Val Glu Glu Gln Thr Lys Ala Phe Leu Asp Gly  
                          275                      280                      285  
 Phe Asn Glu Val Ala Pro Leu Glu Trp Leu Arg Tyr Phe Asp Glu Lys  
                          290                      295                      300  
 Glu Leu Glu Leu Met Leu Cys Gly Met Gln Glu Ile Asp Arg Ala Thr  
 305                      310                      315                      320  
 Gly Arg Arg Ala Pro Ser Thr Gly Thr Thr Pro Arg Thr Ala Ser Arg  
                          325                      330                      335  
 Ser Ser Gly Ser Gly Arg Trp  
                          340

<210> 4222

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4222

Met Arg Trp Arg Ala Asp Gly Arg Ser Leu Glu Lys Leu Pro Val His  
   1                      5                      10                      15  
 Met Gly Leu Val Ile Thr Glu Val Glu Gln Glu Pro Ser Phe Ser Asp  
                          20                      25                      30  
 Ile Ala Ser Leu Val Val Trp Cys Met Ala Val Gly Ile Ser Tyr Ile  
                          35                      40                      45

Ser Val Tyr Asp His Gln Gly Ile Phe Lys Arg Asn Asn Ser Arg Leu  
50 55 60  
Met Asp Glu Ile Leu Lys Gln Gln Gln Glu Leu Leu Gly Leu Asp Cys  
65 70 75 80  
Ser Lys Tyr Ser Pro Glu Phe Ala Asn Ser Asn Asp Lys Asp Asp Gln  
85 90 95  
Val Leu Asn Cys His Leu Ala Val Lys Val Leu Ser Pro Glu Asp Gly  
100 105 110  
Lys Ala Asp Ile Val Arg Ala Ala Gln Asp Phe Cys Gln Leu Val Ala  
115 120 125  
Gln Lys Gln Lys Arg Pro Thr Asp Leu Asp Val Asp Thr Leu Ala Ser  
130 135 140  
Leu Leu Ser Ser Asn Gly Cys Pro Asp Pro Asp Leu Val Leu Lys Phe  
145 150 155 160  
Gly Pro Val Asp Ser Thr Leu Gly Phe Leu Pro Trp His Ile Arg Leu  
165 170 175  
Thr Glu Ile Val Ser Leu Pro Ser His Leu Asn Ile Ser Tyr Glu Asp  
180 185 190  
Phe Phe Ser Ala Leu Arg Gln Tyr Ala Ala Cys Glu Gln Arg Leu Gly  
195 200 205  
Lys

&lt;210&gt; 4223

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4223

Met Gly Val Gly Asn Ile Ala Gly Ser Glu Ser Ser Glu Val Gly Met  
1 5 10 15  
Glu Val Ser Gln Leu Arg Leu Gly Pro Phe Cys Arg Ala Leu Ser Val  
20 25 30  
Tyr Ser Trp Phe Ser Ile Arg Gly Gln Pro Ala Gly Gly Leu Glu Asn  
35 40 45  
Arg Ser Leu Gly Thr Lys Gln Gly Leu Cys Pro Gly Ala Cys Tyr Val  
50 55 60  
Ala Gln Pro Thr Arg Leu Ser Pro Arg Gln Ser Cys Pro Lys Pro Arg  
65 70 75 80  
Lys Leu Met Tyr His Pro Arg Gly Arg Glu Pro Thr Phe Pro Ser Lys  
85 90 95  
Glu Val Phe Tyr Leu Trp  
100

&lt;210&gt; 4224

&lt;211&gt; 885

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4224

Met Gln Glu Ala Ile Ile Leu Leu Ala Leu Leu Gly Ala Met Ser Gly  
1 5 10 15  
Gly Glu Ala Leu His Leu Ile Leu Leu Pro Ala Thr Gly Asn Val Ala  
20 25 30  
Glu Asn Ser Pro Pro Gly Thr Ser Val His Lys Phe Ser Val Lys Leu  
35 40 45

Ser Ala Ser Leu Ser Pro Val Ile Pro Gly Phe Pro Gln Ile Val Asn  
 50 55 60  
 Ser Asn Pro Leu Thr Glu Ala Phe Arg Val Asn Trp Leu Ser Gly Thr  
 65 70 75 80  
 Tyr Phe Glu Val Val Thr Thr Gly Met Glu Gln Leu Asp Phe Glu Thr  
 85 90 95  
 Gly Pro Asn Ile Phe Asp Leu Gln Ile Tyr Val Lys Asp Glu Val Gly  
 100 105 110  
 Val Thr Asp Leu Gln Val Leu Thr Val Gln Val Thr Asp Val Asn Glu  
 115 120 125  
 Pro Pro Gln Phe Gln Gly Asn Leu Ala Glu Gly Leu His Leu Tyr Ile  
 130 135 140  
 Val Glu Arg Ala Asn Pro Gly Phe Ile Tyr Gln Val Glu Ala Phe Asp  
 145 150 155 160  
 Pro Glu Asp Thr Ser Arg Asn Ile Pro Leu Ser Tyr Phe Leu Ile Ser  
 165 170 175  
 Pro Pro Lys Ser Phe Arg Met Ser Ala Asn Gly Thr Leu Phe Ser Thr  
 180 185 190  
 Thr Glu Leu Asp Phe Glu Ala Gly His Arg Ser Phe His Leu Ile Val  
 195 200 205  
 Glu Val Arg Asp Ser Gly Gly Leu Lys Ala Ser Thr Glu Leu Gln Val  
 210 215 220  
 Asn Ile Val Asn Leu Asn Asp Glu Val Pro Arg Phe Thr Ser Pro Thr  
 225 230 235 240  
 Arg Val Tyr Thr Val Leu Glu Glu Leu Ser Pro Gly Thr Ile Val Ala  
 245 250 255  
 Asn Ile Thr Ala Glu Asp Pro Asp Asp Glu Gly Phe Pro Ser His Leu  
 260 265 270  
 Leu Tyr Ser Ile Thr Thr Val Ser Lys Tyr Phe Met Ile Asn Gln Leu

275	280	285
Thr Gly Thr Ile Gln Val Ala Gln Arg Ile Asp Arg Asp Ala Gly Glu		
290	295	300
Leu Arg Gln Asn Pro Thr Ile Ser Leu Glu Val Leu Val Lys Asp Arg		
305	310	315
Pro Tyr Gly Gly Gln Glu Asn Arg Ile Gln Ile Thr Phe Ile Val Glu		
325	330	335
Asp Val Asn Asp Asn Pro Ala Thr Cys Gln Lys Phe Thr Phe Ser Ile		
340	345	350
Met Val Pro Glu Arg Thr Ala Lys Gly Thr Leu Leu Leu Asp Leu Asn		
355	360	365
Lys Phe Cys Phe Asp Asp Asp Ser Glu Ala Pro Asn Asn Arg Phe Asn		
370	375	380
Phe Thr Met Pro Ser Gly Val Gly Ser Gly Ser Arg Phe Leu Gln Asp		
385	390	395
Pro Ala Gly Ser Gly Lys Ile Val Leu Ile Gly Asp Leu Asp Tyr Glu		
405	410	415
Asn Pro Ser Asn Leu Ala Ala Gly Asn Lys Tyr Thr Val Ile Ile Gln		
420	425	430
Val Gln Asp Val Ala Pro Pro Tyr Tyr Lys Asn Asn Val Tyr Val Tyr		
435	440	445
Ile Leu Thr Ser Pro Glu Asn Glu Phe Pro Leu Ile Phe Asp Arg Pro		
450	455	460
Ser Tyr Val Phe Asp Val Ser Glu Arg Arg Pro Ala Arg Thr Arg Val		
465	470	475
Gly Gln Val Arg Ala Thr Asp Lys Asp Leu Pro Gln Ser Ser Leu Leu		
485	490	495
Tyr Ser Ile Ser Thr Gly Gly Ala Ser Leu Gln Tyr Pro Asn Val Phe		
500	505	510

Trp Ile Asn Pro Lys Thr Gly Glu Leu Gln Leu Val Thr Lys Val Asp  
 515 520 525  
 Cys Glu Thr Thr Pro Ile Tyr Ile Leu Arg Ile Gln Ala Thr Asn Asn  
 530 535 540  
 Glu Asp Thr Ser Ser Val Thr Val Thr Val Asn Ile Leu Glu Glu Asn  
 545 550 555 560  
 Asp Glu Lys Pro Ile Cys Thr Pro Asn Ser Tyr Phe Leu Ala Leu Pro  
 565 570 575  
 Val Asp Leu Lys Val Gly Thr Asn Ile Gln Asn Phe Lys Leu Thr Cys  
 580 585 590  
 Thr Asp Leu Asp Ser Ser Pro Arg Ser Phe Arg Tyr Ser Ile Gly Pro  
 595 600 605  
 Gly Asn Val Asn Asn His Phe Thr Phe Ser Pro Asn Ala Gly Ser Asn  
 610 615 620  
 Val Thr Arg Leu Leu Leu Thr Ser Arg Phe Asp Tyr Ala Gly Gly Phe  
 625 630 635 640  
 Asp Lys Ile Trp Asp Tyr Lys Leu Leu Val Tyr Val Thr Asp Asp Asn  
 645 650 655  
 Leu Met Ser Asp Arg Lys Lys Ala Glu Ala Leu Val Glu Thr Gly Thr  
 660 665 670  
 Val Thr Leu Ser Ile Lys Val Ile Pro His Pro Thr Thr Ile Ile Thr  
 675 680 685  
 Thr Thr Pro Arg Pro Arg Val Thr Tyr Gln Val Leu Arg Lys Asn Val  
 690 695 700  
 Tyr Ser Pro Ser Ala Trp Tyr Val Pro Phe Val Ile Thr Leu Gly Ser  
 705 710 715 720  
 Ile Leu Leu Leu Gly Leu Leu Val Tyr Leu Val Val Leu Leu Ala Lys  
 725 730 735  
 Ala Ile His Arg His Cys Pro Cys Lys Thr Gly Lys Asn Lys Glu Pro

740 745 750  
Leu Thr Lys Lys Gly Glu Thr Lys Thr Ala Glu Arg Asp Val Val Val  
755 760 765  
Glu Thr Ile Gln Met Asn Thr Ile Phe Asp Gly Glu Ala Ile Asp Pro  
770 775 780  
Val Thr Gly Glu Thr Tyr Glu Phe Asn Ser Lys Thr Gly Ala Arg Lys  
785 790 795 800  
Trp Lys Asp Pro Leu Thr Gln Met Pro Lys Trp Lys Glu Ser Ser His  
805 810 815  
Gln Gly Ala Ala Pro Arg Arg Val Thr Ala Gly Glu Gly Met Gly Ser  
820 825 830  
Leu Arg Ser Ala Asn Trp Glu Glu Asp Glu Leu Ser Gly Lys Ala Trp  
835 840 845  
Ala Glu Asp Ala Gly Leu Gly Ser Arg Asn Glu Gly Gly Lys Leu Gly  
850 855 860  
Asn Pro Lys Asn Arg Asn Pro Ala Phe Met Asn Arg Ala Tyr Pro Lys  
865 870 875 880  
Pro His Pro Gly Lys  
885

&lt;210&gt; 4225

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4225

Met Asp Asn Pro Leu Leu Lys Tyr Ser Ala Lys Asp Tyr Phe Phe Lys  
1 5 10 15



Ala Ala Leu Cys His Phe Ile Val Asp Glu Leu Asn Val Lys Leu Ala  
                   20                  25                  30  
 Leu Glu Lys Tyr Glu Glu Met Phe Pro Ala Phe Thr Asp Ser Arg Glu  
                   35                  40                  45  
 Cys Lys Leu Leu Lys Lys Leu Leu Glu Ala His Glu Glu Gln Asn Ser  
                   50                  55                  60  
 Glu Ala Tyr Thr Glu Ala Val Lys Glu Phe Asp Ser Ile Ser Arg Leu  
                   65                  70                  75                  80  
 Asp Gln Trp Leu Thr Thr Met Leu Leu Arg Ile Lys Lys Ser Ile Gln  
                                   85                  90                  95  
 Gly Asp Gly Glu Gly Asp Gly Asp Leu Lys  
                   100                  105

&lt;210&gt; 4226

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4226

Met Asn Asn Asn Met Ser Leu Gln Asp Ala Glu Trp Tyr Trp Gly Asp  
           1                  5                  10                  15  
 Ile Ser Arg Glu Glu Val Asn Glu Lys Leu Arg Asp Thr Ala Asp Gly  
                   20                  25                  30  
 Thr Phe Leu Val Arg Asp Ala Ser Thr Lys Met His Gly Asp Tyr Thr  
                   35                  40                  45  
 Leu Thr Leu Arg Lys Gly Gly Asn Asn Lys Leu Ile Lys Ile Phe His  
                   50                  55                  60  
 Arg Asp Gly Lys Tyr Gly Phe Ser Asp Pro Leu Thr Phe Ser Ser Val

65                      70                      75                      80  
Val Glu Leu Ile Asn His Tyr Arg Asn Glu Ser Leu Ala Gln Tyr Asn  
                         85                      90                      95  
Pro Lys Leu Asp Val Lys Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln  
                         100                      105                      110  
Asp Gln Val Val Lys Glu Asp Asn Ile Glu Ala Val Gly Lys Lys Leu  
                         115                      120                      125  
His Glu Tyr Asn Thr Gln Phe Gln Glu Lys Ser Arg Glu Tyr Asp Arg  
                         130                      135                      140  
Leu Tyr Glu Glu Tyr Thr Arg Thr Ser Gln Glu Ile Gln Met Lys Arg  
145                      150                      155                      160  
Thr Ala Ile Glu Ala Phe Asn Glu Thr Ile Lys Ile Phe Glu Glu Gln  
                         165                      170                      175  
Cys Gln Thr Gln Glu Arg Tyr Ser Lys Glu Tyr Ile Glu Lys Phe Lys  
                         180                      185                      190  
Arg Glu Gly Asn Glu Lys Glu Ile Gln Arg Ile Met His Asn Tyr Asp  
                         195                      200                      205  
Lys Leu Lys Ser Arg Ile Ser Glu Ile Ile Asp Ser Arg Arg Arg Leu  
                         210                      215                      220  
Glu Glu Asp Leu Lys Lys Gln Ala Ala Glu Tyr Arg Glu Ile Asp Lys  
225                      230                      235                      240  
Arg Met Asn Ser Ile Lys Pro Asp Leu Ile Gln Leu Arg Lys Thr Arg  
                         245                      250                      255  
Asp Gln Tyr Leu Met Trp Leu Thr Gln Lys Gly Val Arg Gln Lys Lys  
                         260                      265                      270  
Leu Asn Glu Trp Leu Gly Asn Glu Asn Thr Glu Asp Gln Tyr Ser Leu  
                         275                      280                      285  
Val Glu Asp Asp Glu Asp Leu Pro His His Asp Glu Lys Thr Trp Asn  
                         290                      295                      300



出証特 2 0 0 4 - 3 0 5 9 6 6 0

Leu Gln Gly Pro Ser Glu Lys Asn Ala Arg Ile Phe Leu Met Asp Lys  
 290 295 300  
 Asp Ala Glu Glu Ile Ser Ser Asp Val Ala Gln Tyr Ile Asn Phe His  
 305 310 315 320  
 Phe Ser Leu Leu Glu Ser Ile Leu Gln Arg Leu Asn Glu Glu Glu Lys  
 325 330 335  
 Arg Glu Ile Gln Arg Ile Val Thr Lys Phe Asn Lys Glu Lys Ala Ile  
 340 345 350  
 Ile Leu Lys Cys Leu Gln Asn Lys Leu Val Ile Lys Thr Glu Thr Thr  
 355 360 365  
 Val

<210> 4228

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4228

Met Ala Trp Asp Ala Gly Ala Trp Val Glu Arg Arg Gly Pro Gln Ala  
 1 5 10 15  
 Ala Ala Val Leu Pro Ile Gly His Thr Val Gln Gly Ala Ser Lys Ala  
 20 25 30  
 Thr Lys His Thr Pro Gln Pro Ser Gly Cys Leu Trp Leu Thr Thr Cys  
 35 40 45  
 Leu Glu Thr Phe Thr Leu Gly His Met Ile Phe Leu Pro Thr His Pro  
 50 55 60  
 Leu Pro Pro Pro Ser Gly Arg Cys Gln Gln Arg Ala Pro Trp Glu Pro

65                      70                      75                      80  
 Gly Leu Leu Val Glu Ala Trp Leu Glu Gly Arg Val Ser Leu Glu Trp  
                             85                      90                      95  
 Thr Asp Ala Leu Pro Pro Leu Gln Ser Leu Thr Ala Ala Ala Pro Ser  
                             100                      105                      110  
 Gln Met Gln Asn  
                             115

<210> 4229

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4229

Met Leu Cys Pro Trp Arg Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu  
 1                      5                      10                      15  
 Thr Ile Phe Leu Val Ala Ala Ser Ser Ser Leu Cys Met Asp Glu Lys  
                             20                      25                      30  
 Gln Ile Thr Gln Asn Tyr Ser Lys Val Leu Ala Glu Val Asn Thr Ser  
                             35                      40                      45  
 Trp Pro Val Lys Met Ala Thr Asn Ala Val Leu Cys Cys Pro Pro Ile  
                             50                      55                      60  
 Ala Leu Arg Asn Leu Ile Ile Ile Thr Trp Glu Ile Ile Leu Arg Gly  
 65                      70                      75                      80  
 Gln Pro Ser Cys Thr Lys Ala Tyr Arg Lys Glu Thr Asn Glu Thr Lys  
                             85                      90                      95  
 Glu Thr Asn Cys Thr Asp Glu Arg Ile Thr Trp Val Ser Arg Pro Asp  
                             100                      105                      110

Gln Asn Ser Asp Leu Gln Ile Arg Pro Val Ala Ile Thr His Asp Gly  
 115 120 125  
 Tyr Tyr Arg Cys Ile Met Val Thr Pro Asp Gly Asn Phe His Arg Gly  
 130 135 140  
 Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Thr Leu Phe Gln Asn  
 145 150 155 160  
 Arg Asn Arg Thr Ala Val Cys Lys Ala Val Ala Gly Lys Pro Ala Ala  
 165 170 175  
 Gln Ile Ser Trp Ile Pro Glu Gly Asp Cys Ala Thr Lys Gln Glu Tyr  
 180 185 190  
 Trp Ser Asn Gly Thr Val Thr Val Lys Ser Thr Cys His Trp Glu Val  
 195 200 205  
 His Asn Val Ser Thr Val Thr Cys His Val Ser His Leu Thr Gly Asn  
 210 215 220  
 Lys Ser Leu Tyr Ile Glu Leu Leu Pro Val Pro Gly Ala Lys Lys Ser  
 225 230 235 240  
 Ala Lys Leu Tyr Ile Pro Tyr Ile Ile Leu Thr Ile Ile Ile Leu Thr  
 245 250 255  
 Ile Val Gly Phe Ile Trp Leu Leu Lys Val Asn Gly Cys Arg Lys Tyr  
 260 265 270  
 Lys Leu Asn Lys Thr Glu Ser Thr Pro Val Val Glu Glu Asp Glu Met  
 275 280 285  
 Gln Pro Tyr Ala Ser Tyr Thr Glu Lys Asn Asn Pro Leu Tyr Asp Thr  
 290 295 300  
 Thr Asn Lys Val Lys Ala Ser Gln Ala Leu Gln Ser Glu Val Asp Thr  
 305 310 315 320  
 Asp Leu His Thr Leu  
 325

&lt;210&gt; 4230

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4230

Met His Ser Thr Gln Asp Lys Ser Leu His Leu Glu Gly Asp Pro Asn

1 5 10 15

Pro Ser Ala Ala Pro Thr Ser Thr Cys Ala Pro Arg Lys Met Pro Lys

20 25 30

Arg Ile Ser Ile Ser Lys Gln Leu Ala Ser Val Lys Ala Leu Arg Lys

35 40 45

Cys Ser Asp Leu Glu Lys Ala Ile Ala Thr Thr Ala Leu Ile Phe Arg

50 55 60

Asn Ser Ser Asp Ser Asp Gly Lys Leu Glu Lys Ala Ile Ala Lys Asp

65 70 75 80

Leu Leu Gln Thr Gln Phe Arg Asn Phe Ala Glu Pro Cys Glu Asp Ser

85 90 95

Arg Arg Ser Trp Pro Ser Ala Lys Leu Glu Glu Ser Thr Leu Ser Arg

100 105 110

His Trp Ile

115

&lt;210&gt; 4231

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4231

Met Ala Ala Leu Ile Cys Pro Ala Ser Pro Gln His Phe Pro Phe Leu  
1 5 10 15  
His Ser Phe Trp Asp Pro Thr Trp Leu Leu Ser His Leu Ala Thr Ser  
20 25 30  
Gln Thr His Leu Pro Met Gly Thr Ser Arg Ser Ala Pro Gly Pro Val  
35 40 45  
Leu Ser Ser Ser Leu His Ser Pro Arg Cys Leu Leu Leu Leu Val Phe  
50 55 60  
Asn Thr Thr Tyr Gly His Arg Ala Ile Gly Trp His Thr Ser Ala Phe  
65 70 75 80  
Ser Pro Asp Cys Ser Leu Glu Leu Arg Ile Leu Phe Ser Asn Ala Phe  
85 90 95  
Leu Thr Leu Ala His Arg Gln Leu Ile Arg Leu Leu Lys Leu Asp Ile  
100 105 110  
Val Lys Thr Leu Ser Cys Ser Pro Phe Gln Ala Phe Leu Ser Leu Pro  
115 120 125  
Pro Ile Asn Ser Thr Ser Val Leu Ala Ala Asp Pro Ala Lys Asp Leu  
130 135 140  
Gly Val Ser Leu Phe Pro Pro Phe Pro Arg Ser  
145 150 155

&lt;210&gt; 4232

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4232

Met	Asp	Leu	Met	Cys	Lys	Lys	Met	Lys	His	Leu	Trp	Phe	Phe	Leu	Leu
1				5					10					15	
Leu	Val	Ala	Ala	Pro	Gly	Trp	Val	Leu	Ser	Gln	Leu	Gln	Leu	Gln	Glu
				20					25					30	
Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Glu	Thr	Leu	Ser	Leu	Thr	Cys
				35					40					45	
Ser	Val	Ser	Gly	Ala	Ser	Met	Thr	Thr	Ser	Glu	Tyr	Tyr	Trp	Ala	Trp
				50					55					60	
Ile	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile	Gly	Asn	Ile	Phe
				65					70					75	
Tyr	Thr	Gly	Arg	Thr	Phe	Tyr	Asn	Pro	Ser	Leu	Lys	Ser	Arg	Leu	Ser
									85					90	
Leu	Ser	Ile	Asp	Thr	Ala	Thr	Ser	Gln	Phe	Ser	Leu	Ser	Leu	Arg	Ser
									100					105	
Val	Thr	Ala	Ala	Asp	Thr	Ala	Ile	Tyr	Phe	Cys	Ala	Arg	His	Leu	Asn
									115					120	
Thr	Val	Thr	Ile	Tyr	Arg	Gln	Pro	Phe	Asp	His	Trp	Gly	Gln	Gly	Ala
									130					135	
Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Pro	Thr	Ser	Pro	Lys	Val	Phe	Pro
									145					150	
Leu	Ser	Leu	Asp	Ser	Thr	Pro	Gln	Asp	Gly	Asn	Val	Val	Val	Ala	Cys
									165					170	
Leu	Val	Gln	Gly	Phe	Phe	Pro	Gln	Glu	Pro	Leu	Ser	Val	Thr	Trp	Ser
									180					185	
Glu	Ser	Gly	Gln	Asn	Val	Thr	Ala	Arg	Asn	Phe	Pro	Pro	Ser	Gln	Asp
									195					200	
Ala	Ser	Gly	Asp	Leu	Tyr	Thr	Thr	Ser	Ser	Gln	Leu	Thr	Leu	Pro	Ala
									210					215	
														220	

Thr Gln Cys Pro Asp Gly Lys Ser Val Thr Cys His Val Lys His Tyr  
225 230 235 240  
Thr Asn Pro Ser Gln Asp Val Thr Val Pro Cys Pro Val Pro Pro Pro  
245 250 255  
Pro Pro Cys Cys His Pro Arg Leu Ser Leu His Arg Pro Ala Leu Glu  
260 265 270  
Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys Thr Leu Thr Gly  
275 280 285  
Leu Arg Asp Ala Ser Gly Ala Thr Phe Thr Trp Thr Pro Ser Ser Gly  
290 295 300  
Lys Ser Ala Val Gln Gly Pro Pro Glu Arg Asp Leu Cys Gly Cys Tyr  
305 310 315 320  
Ser Val Ser Ser Val Leu Pro Gly Cys Ala Gln Pro Trp Asn His Gly  
325 330 335  
Glu Thr Phe Thr Cys Thr Ala Ala His Pro Glu Leu Lys Thr Pro Leu  
340 345 350  
Thr Ala Asn Ile Thr Lys Ser Gly Asn Thr Phe Arg Pro Glu Val His  
355 360 365  
Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn Glu Leu Val Thr  
370 375 380  
Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp Val Leu Val Arg  
385 390 395 400  
Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr Leu Thr Trp  
405 410 415  
Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr Phe Ala Val Thr  
420 425 430  
Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys Gly Asp Thr Phe  
435 440 445  
Ser Cys Met Val Gly His Glu Ala Leu Pro Leu Ala Phe Thr Gln Lys

450                      455                      460  
 Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val Asn Val Ser Val  
 465                      470                      475                      480  
 Val Met Ala Glu Val Asp Gly Thr Cys Tyr  
                          485                      490

<210> 4233

<211> 1543

<212> PRT

<213> Homo sapiens

<400> 4233

Met Leu Glu Thr Gly Tyr Val Ile Thr Asp Gln Thr Arg Asp Glu Met  
     1                      5                      10                      15  
 Ser Ile Glu Ser Phe Leu Gly Arg Ser Ser Cys Ile Ala Glu Ile His  
                          20                      25                      30  
 Thr Asp Leu Asp His Thr Gly Tyr Asn Glu Pro Arg Lys Asn His Ser  
                          35                      40                      45  
 Glu Trp Lys Ile Thr Leu Lys Glu Met Ala Gln Ile Arg Arg Lys Cys  
                          50                      55                      60  
 Glu Met Phe Thr Tyr Leu Arg Phe Asp Ser Glu Ile Thr Ile Val Val  
   .65                      70                      75                      80  
 Ser Val Ala Ser Lys Gln Gly Asp Asn Gly His Val Val Ile Gln Tyr  
                          85                      90                      95  
 Met Tyr Val Pro Pro Gly Ala Pro Ile Pro Lys Thr Arg Asp Asp Tyr  
                          100                      105                      110  
 Thr Trp Gln Ser Gly Thr Asn Ala Ser Val Phe Trp Gln Gln Gly Gln  
                          115                      120                      125

Pro Tyr Pro Arg Phe Thr Ile Pro Phe Met Ser Ile Ala Ser Ala Tyr  
 130 135 140  
 Tyr Met Phe Tyr Asp Gly Tyr Glu Asp Asp Asn Gly Thr Thr Tyr Gly  
 145 150 155 160  
 Ala Ala Val Thr Asn Asp Met Gly Thr Leu Cys Val Arg Ile Val Thr  
 165 170 175  
 Glu Gln Gln Lys Asn Glu Val Lys Ile Thr Ser Arg Val Tyr His Lys  
 180 185 190  
 Ala Lys His Ile Ser Ala Trp Cys Pro Arg Pro Pro Arg Ala Val Ala  
 195 200 205  
 Tyr Gln His Thr Tyr Ser Pro Asn Phe Val Pro Pro Thr Gly Ala Val  
 210 215 220  
 Gln Thr His Ile Lys Phe Arg Pro Asn Val Lys Asp Val Thr Ser Val  
 225 230 235 240  
 Met Thr Ala Gly Pro Ser Asp Leu Tyr Val His Ser Ser Asn Phe Ile  
 245 250 255  
 Tyr Arg Asn Leu His Leu Cys Glu Pro Glu Asn Leu Asn Asp Ser Val  
 260 265 270  
 Leu Ile Ser Tyr Ser Ser Asp Leu Val Ile Tyr Arg Thr Asn Thr Thr  
 275 280 285  
 Gly Asp Asp Ile Ile Pro Thr Cys Asp Cys Thr Leu Gly Thr Tyr Tyr  
 290 295 300  
 Cys Lys His Lys Asp Arg Tyr Tyr Pro Ile Ser Val Thr Lys His Gln  
 305 310 315 320  
 Trp Tyr Glu Ile Gln Glu Ser Asp Tyr Tyr Pro Lys His Ile Gln Tyr  
 325 330 335  
 Asn Ile Leu Leu Gly Val Gly Pro Cys Lys Pro Gly Asp Cys Gly Gly  
 340 345 350  
 Lys Leu Leu Cys Lys His Gly Val Ile Gly Ile Ile Thr Ala Gly Gly

355 360 365  
Asp Asn His Val Ala Phe Ile Asp Leu Arg Asp Phe Gln Val Ala Glu  
370 375 380  
Glu Gln Gly Ile Pro Glu Tyr Ile His Ser Leu Gly Glu Ala Phe Gly  
385 390 395 400  
Ser Gly Phe Val Asp Asn Ile Lys Asp Gln Ile Gln Thr Ile Asn Pro  
405 410 415  
Ile Asn Lys Ile Ser Ser Lys Ile Val Lys Trp Val Ile Arg Ile Ile  
420 425 430  
Ser Ala Ile Thr Ile Ile Ile Arg Asn Asn Ala Asp Pro His Thr Ile  
435 440 445  
Ile Ala Thr Leu Ala Leu Leu Gly Cys Ser Gly Ser Pro Trp Arg Phe  
450 455 460  
Ile Lys Glu Lys Val Cys Gly Trp Leu Gln Leu Asn Tyr Ile His Lys  
465 470 475 480  
Glu Ser Asp Gly Trp Ile Lys Lys Phe Thr Glu Met Cys Asn Ala Ala  
485 490 495  
Arg Gly Leu Glu Trp Leu Gly Asn Lys Ile Ser Lys Phe Ile Asp Trp  
500 505 510  
Leu Lys Ser Met Leu Pro Gln Ala Arg Leu Lys Val Asp Phe Ile Lys  
515 520 525  
Asn Leu Lys Gln Leu Pro Leu Leu Glu Lys Gln Val Asp Gly Leu Arg  
530 535 540  
Leu Ala Thr Gln Lys Gln Gln Gln Glu Tyr Ile Asp Thr Leu Thr Leu  
545 550 555 560  
Met Leu Asp Ser Ser Asn Lys Phe Leu Pro Leu Tyr Ala Leu Glu Asn  
565 570 575  
Lys Arg Ile Lys Glu Leu Leu Lys Arg Gly Gln Met Ile Leu Arg Thr  
580 585 590

Ser Lys Arg Thr Glu Pro Val Gly Val Ile Phe His Gly Glu Pro Gly  
595 600 605

Thr Gly Lys Ser Ile Thr Thr Ser Ile Leu Ala Arg Met Leu Thr Ser  
610 615 620

Glu Ser Asp Ile Tyr Ser Leu Pro Pro Ser Pro Lys Tyr Phe Asp Gly  
625 630 635 640

Tyr Asp Gln Gln Ser Val Val Ile Met Asp Asp Ile Met Gln Asn Pro  
645 650 655

Ser Gly Glu Asp Met Ser Leu Phe Cys Gln Met Val Ser Ser Val Pro  
660 665 670

Phe Ile Pro Pro Met Ala Asp Leu Pro Asp Lys Gly Lys Pro Phe Ser  
675 680 685

Ser Asp Tyr Val Leu Ala Ser Thr Asn His Thr Leu Leu His Pro Pro  
690 695 700

Thr Ile Thr Cys Thr Thr Ala Met Asn Arg Arg Phe Phe Leu Asp Leu  
705 710 715 720

Asp Ile Ile Val Lys Asp Asp Tyr Lys Leu Gly Gln Gly Lys Leu Asn  
725 730 735

Leu Gln Cys Ala Leu Lys Pro Cys Lys Glu Gly Lys Ile Gly Asn Ala  
740 745 750

Lys Cys Cys Pro Leu Ile Cys Gly Lys Ala Leu Gln Phe Arg Asp Arg  
755 760 765

Ser Asn Gly Glu His Leu Ser Leu Ala Thr Ile Tyr Asn Arg Ile Thr  
770 775 780

Gln Glu Ser Lys Asn Arg Lys Glu Leu Thr Asn Ser Leu Gln Ala Ile  
785 790 795 800

Phe Gln Gly Pro Ile Asp Ile Val Asn Lys Pro Pro Pro Pro Ala Ile  
805 810 815

Val Asp Leu Leu Lys Ser Val Arg Ser Pro Asp Val Ile Arg Tyr Cys

820 825 830  
Glu Glu Asn Lys Trp Ile Ile Pro Ala Asp Cys Arg Leu Glu Arg Asp  
835 840 845  
Leu Asn Tyr Ala Asn Val Ile Ile Ser Met Ile Ala Asn Val Ile Ser  
850 855 860  
Ile Met Gly Val Ile Tyr Ile Ile Tyr Lys Leu Phe Cys Ser Leu Gln  
865 870 875 880  
Gly Pro Tyr Ser Gly Glu Pro Lys Pro Val Thr Arg Lys Pro Glu Arg  
885 890 895  
Arg Val Val Thr Gln Gly Pro Gln Glu Glu Phe Gly Arg Ser Leu Met  
900 905 910  
Lys His Asn Thr Cys Val Val Thr Thr Asn Asn Gly Lys Phe Thr Gly  
915 920 925  
Leu Gly Ile Tyr Asp Asn Val Met Ile Ile Pro Thr His Ala Asp Ala  
930 935 940  
Gly Gln Glu Val Glu Val Asp Gly Ile Lys Thr Lys Val Ser Asp Ala  
945 950 955 960  
Tyr Asp Leu Tyr Asn Thr Gln Gly Val Lys Leu Glu Ile Thr Val Leu  
965 970 975  
Lys Leu Asn Arg Asn Glu Lys Phe Arg Asp Ile Arg Lys Tyr Ile Pro  
980 985 990  
Glu Ser Glu Asp Asp Tyr Ser Glu Cys Cys Leu Ala Leu Val Ala Asn  
995 1000 1005  
Gln Val Glu Pro Thr Ile Leu Glu Val Gly Asp Cys Cys Ser Tyr Gly  
1010 1015 1020  
Asn Ile Leu Leu Ser Gly Asn Gln Thr Ala Arg Met Ile Lys Tyr Asn  
1025 1030 1035 1040  
Tyr Pro Thr Lys Ser Gly Phe Cys Gly Gly Val Leu Tyr Lys Ile Gly  
1045 1050 1055



Leu Ile Leu Gly Ile His Val Gly Gly Asn Gly Arg Asp Gly Phe Ser  
1060 1065 1070  
Ala Met Leu Leu Arg Ser Tyr Phe Asn Glu Gln Gln Gly Lys Ile Val  
1075 1080 1085  
Ser Lys Ala Asp Val Lys Glu His Asn Leu Tyr Ser Ile His Thr Pro  
1090 1095 1100  
Thr Lys Thr Lys Leu Gln Pro Ser Val Phe His Asp Val Phe Pro Gly  
1105 1110 1115 1120  
Ser Lys Glu Pro Ala Val Leu Ser Thr Arg Asp Pro Arg Leu Glu Val  
1125 1130 1135  
Asp Leu Asp Ser Ser Ile Phe Ser Lys Tyr Lys Gly Asn Glu Ala Val  
1140 1145 1150  
Lys Ile Ser Glu Asn Met Leu Val Ala Ala Ala His Tyr Thr Ala Gln  
1155 1160 1165  
Leu Thr Thr Leu Asp Ile Asp Pro Gln Pro Ile Ser Leu Glu Asp Ser  
1170 1175 1180  
Val Tyr Gly Ile Glu Gly Leu Glu Ala Leu Asp Leu His Thr Ser Ala  
1185 1190 1195 1200  
Gly Tyr Pro Tyr Thr Ala His Gly Ile Lys Lys Lys Asp Leu Ile Pro  
1205 1210 1215  
Lys Asp Lys Asn Leu Thr Lys Leu Lys Ile Ala Met Glu Lys Tyr Gly  
1220 1225 1230  
Leu Asp Leu Pro Met Ile Thr Phe Leu Lys Asp Glu Leu Arg Lys Pro  
1235 1240 1245  
Glu Lys Ile Ser Thr Gly Lys Thr Arg Ile Ile Glu Ala Ser Ser Leu  
1250 1255 1260  
Asn Asp Thr Val Gln Phe Arg Met Ala Phe Gly Asn Leu Phe Ser Lys  
1265 1270 1275 1280  
Phe His Lys Asn Pro Gly Ile Val Thr Gly Ser Ala Val Gly Cys Asp

1285	1290	1295
Pro Glu Val Phe Trp Ser Lys Ile	Pro Val Met Leu Asp Gly Asp Cys	
1300	1305	1310
Leu Met Ala Phe Asp Tyr Ser Asn Tyr	Asp Gly Ser Leu Asn Pro Val	
1315	1320	1325
Trp Phe Glu Leu Leu Glu Arg Val Leu	Asn Asp Leu Gly Phe Pro Gly	
1330	1335	1340
Lys Leu Val Asn Lys Leu Cys His Ser	Lys His Ile Tyr Lys Thr Thr	
1345	1350	1355
Tyr Tyr Glu Val Glu Gly Gly Met Pro	Ser Gly Cys Ala Gly Thr Ser	
1365	1370	1375
Ile Phe Asn Ser Met Ile Asn Asn Ile	Ile Ile Arg Thr Leu Val Leu	
1380	1385	1390
Asp Thr Tyr Lys Tyr Ile Asn Leu Asp	Lys Leu Lys Ile Leu Ala Tyr	
1395	1400	1405
Gly Asp Asp Val Leu Phe Ser Tyr Pro	Tyr Asp Leu Asp Met Ala Glu	
1410	1415	1420
Leu Ala Lys Glu Gly Asn Lys Tyr Gly	Leu Thr Ile Thr Pro Ala Asp	
1425	1430	1435
Lys Ser Asp Lys Phe Glu Lys Leu Asn	Tyr Glu Asn Ala Thr Phe Leu	
1445	1450	1455
Lys Arg Gly Phe Lys Gln Asp Asp Arg	Tyr Lys Phe Leu Ile His Pro	
1460	1465	1470
Ile Tyr Pro Glu Ser Glu Val Trp Glu	Ser Ile Arg Trp Thr Lys Ser	
1475	1480	1485
Pro Arg Asn Met Gln Glu His Val Leu	Ser Leu Cys His Leu Met Trp	
1490	1495	1500
His Asn Gly Lys Asp Lys Tyr Asp Ser	Phe Val Asn Lys Ile Arg Ser	
1505	1510	1515
		1520

Val Ser Ala Gly Arg Ala Leu Tyr Ile Pro Pro Tyr Glu Leu Leu Leu

1525

1530

1535

His Glu Trp Tyr Glu Lys Phe

1540

<210> 4234

<211> 366

<212> PRT

<213> Homo sapiens

<400> 4234

Met Gln Ser Val Gln Lys Met Phe Lys Cys His Pro Asp Glu Val Met

1

5

10

15

Ser Ile Arg Thr Thr Asn Arg Glu Tyr Phe Leu Ile Gly His Asp Arg

20

25

30

Glu Lys Ile Lys Asp Trp Val Ser Phe Met Ser Ser Phe Arg Gln Asp

35

40

45

Ile Lys Ala Thr Gln Gln Asn Thr Glu Glu Glu Leu Ser Leu Gly Asn

50

55

60

Lys Arg Thr Leu Phe Tyr Ser Ser Pro Leu Leu Gly Pro Ser Ser Thr

65

70

75

80

Ser Glu Ala Val Gly Ser Ser Ser Pro Arg Asn Gly Leu Gln Asp Lys

85

90

95

His Leu Met Glu Gln Ser Ser Pro Gly Phe Arg Gln Thr His Leu Gln

100

105

110

Asp Leu Ser Glu Ala Thr Gln Asp Val Lys Glu Glu Asn His Tyr Leu

115

120

125

Thr Pro Arg Ser Val Leu Leu Glu Leu Asp Asn Ile Ile Ala Ser Ser

130	135	140
Asp Ser Gly Glu Ser Ile Glu Thr Asp Gly Pro Asp Gln Val Ser Gly		
145	150	155
Arg Ile Glu Cys His Tyr Glu Pro Met Glu Ser Tyr Phe Phe Lys Glu		
165	170	175
Thr Ser His Glu Ser Val Asp Ser Ser Lys Glu Glu Pro Gln Thr Leu		
180	185	190
Pro Glu Thr Gln Asp Gly Asp Leu His Leu Gln Glu Gln Gly Ser Gly		
195	200	205
Ile Asp Trp Cys Leu Ser Pro Ala Asp Val Glu Ala Gln Thr Thr Asn		
210	215	220
Asp Gln Lys Gly Asn Ile Pro Asp Glu Ser Gln Val Glu Lys Leu Asn		
225	230	235
Val Phe Leu Ser Pro Pro Asp Val Ile Asn Tyr Leu Ala Leu Thr Glu		
245	250	255
Ala Thr Gly Arg Ile Cys Val Ser Gln Trp Glu Gly Pro Pro Arg Leu		
260	265	270
Gly Cys Ile Phe Cys His Gly Asp His Leu Leu Ala Val Asn Asp Leu		
275	280	285
Lys Pro Gln Ser Leu Glu Glu Val Ser Leu Phe Leu Thr Arg Ser Ile		
290	295	300
Gln Lys Glu Lys Leu Lys Leu Thr Ile Gly Arg Ile Pro Asn Ser Glu		
305	310	315
Thr Phe His Ala Ala Ser Cys Met Cys Pro Ser Lys Cys Gln Ser Ala		
325	330	335
Ala Pro Ser Gln Leu Asp Lys Pro Arg Leu Asn Arg Ala Pro Lys Arg		
340	345	350
Ser Pro Ala Ile Lys Lys Ser Gln Gln Lys Gly Ala Arg Glu		
355	360	365

&lt;210&gt; 4235

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4235

Met Lys Pro Pro Met Ser Trp Trp Lys Ala Tyr Leu Leu Ser Ile Ser

1 5 10 15

His Ala Lys Lys Ala Gly Thr Cys Ile His Phe Ser Lys Arg Glu Asn

20 25 30

Glu Ile Gln Arg Ser Ile Val Thr Cys Pro Lys Ser His Ser Trp His

35 40 45

Ser Asp Pro Asn Leu Ser Lys Ser Lys Ala Trp Val Leu Pro Leu Gln

50 55 60

Arg Gly Gln Pro Gln Pro Ala Phe Leu His Arg Leu Arg Gln Arg Tyr

65 70 75 80

Met Leu Cys Pro Leu Arg Ala Leu Leu Leu Gln Thr Tyr Phe Val Lys

85 90 95

Met Ala Gln Pro Gly Cys Leu Gly Asp Arg Lys Pro His Asn Gly Arg

100 105 110

Thr Lys Glu Gly Ala Val Gly Leu Ser Thr Ser Ile Lys Thr Asn Arg

115 120 125

Pro Thr Arg Ser Thr Arg Leu Pro Ser Thr Ala Asp Leu Glu Ile Lys

130 135 140

Ser Phe Arg Arg Ala Leu Leu Ser Leu Ser Ile Arg Tyr Lys Ile Ser

145 150 155 160

Ser Pro Leu Ser Cys Trp Gly Tyr Leu Asp Ser Leu Ser Phe Ser Gly

165 170 175  
 Val Pro Val Tyr Lys Thr Pro Glu Arg Ala Gln Trp Leu Thr Pro Ile  
 180 185 190  
 Ile Pro Ala Leu Trp Glu Ala Lys Ala Gly Arg Ser Pro Glu Ala Gly  
 195 200 205  
 Ser Ser Arg Ser Ala  
 210

<210> 4236

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4236

Met Glu Thr Trp Gly Gly Arg Lys Leu Ser Arg Asp Thr Val Pro Pro  
 1 5 10 15  
 Cys Ile Thr Glu Met Pro Gly Gln Ser Asp Leu Pro Gln Glu Ala Ser  
 20 25 30  
 Pro Ala Ala Pro Val Pro Glu Met Ser Gly Glu Arg Ala Ser Arg Glu  
 35 40 45  
 Ala Gly Ala Trp Ala Lys Arg Gly Ala Thr Gln Phe Phe Gln Asn Ile  
 50 55 60  
 Pro Val Trp Pro Met Asp Thr Gly Leu Leu Met Ser Arg Glu Gly Leu  
 65 70 75 80  
 Leu Ser Ser Ser Arg Thr Phe Gln Cys Gly Pro Trp Thr Pro Ala Phe  
 85 90 95  
 Trp Gly Pro Phe Cys Pro Val Ser Leu Gln Leu Met Ser Cys Leu Arg  
 100 105 110

Pro Glu Leu Pro Lys Ser Arg Thr Ala His Tyr Leu Leu  
 115 120 125

<210> 4237

<211> 331

<212> PRT

<213> Homo sapiens

<400> 4237

Met Ile Arg Lys Asn Asn Tyr Thr Leu Pro Ser Arg Ile Ser Phe Phe  
 1 5 10 15  
 Cys Ser Leu Pro Thr Phe Cys Ser Asn His Ile Asn Lys Ser Cys Phe  
 20 25 30  
 Phe Phe Ala Val Cys Ile Ala Ser Gly Thr Lys Val Ala Leu Phe Asn  
 35 40 45  
 Arg Leu Arg Ser Gln Thr Val Ser Thr Arg Tyr Leu His Val Glu Gly  
 50 55 60  
 Gly Asn Phe His Ala Ser Ser Gln Gln Trp Gly Ala Phe Phe Ile His  
 65 70 75 80  
 Leu Leu Asp Asp Asp Glu Ser Glu Gly Glu Glu Phe Thr Val Arg Asp  
 85 90 95  
 Gly Tyr Ile His Tyr Gly Gln Thr Val Lys Leu Val Cys Ser Val Thr  
 100 105 110  
 Gly Met Ala Leu Pro Arg Leu Ile Ile Arg Lys Val Asp Lys Gln Thr  
 115 120 125  
 Ala Leu Leu Asp Ala Asp Asp Pro Val Ser Gln Leu His Lys Cys Ala  
 130 135 140  
 Phe Tyr Leu Lys Asp Thr Glu Arg Met Tyr Leu Cys Leu Ser Gln Glu

145                      150                      155                      160  
Arg Ile Ile Gln Phe Gln Ala Thr Pro Cys Pro Lys Glu Pro Asn Lys  
                         165                      170                      175  
Glu Met Ile Asn Asp Gly Ala Ser Trp Thr Ile Ile Ser Thr Asp Lys  
                         180                      185                      190  
Leu Asn Gly Gly Gly Asp Val Ala Met Leu Glu Leu Thr Gly Gln Asn  
                         195                      200                      205  
Phe Thr Pro Asn Leu Arg Val Trp Phe Gly Asp Val Glu Ala Glu Thr  
                         210                      215                      220  
Met Tyr Arg Cys Gly Glu Ser Met Leu Cys Val Val Pro Asp Ile Ser  
225                      230                      235                      240  
Ala Phe Arg Glu Gly Trp Arg Trp Val Arg Gln Pro Val Gln Val Pro  
                         245                      250                      255  
Val Thr Leu Val Arg Asn Asp Gly Ile Ile Tyr Ser Thr Ser Leu Thr  
                         260                      265                      270  
Phe Thr Tyr Thr Pro Glu Pro Gly Pro Arg Pro His Cys Ser Ala Ala  
                         275                      280                      285  
Gly Ala Ile Leu Arg Ala Asn Ser Ser Gln Val Pro Pro Asn Glu Ser  
                         290                      295                      300  
Asn Thr Asn Ser Glu Gly Ser Tyr Thr Asn Ala Ser Thr Asn Ser Thr  
305                      310                      315                      320  
Ser Val Thr Ser Ser Thr Ala Thr Val Val Ser  
                         325                      330

&lt;210&gt; 4238

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4238

Met	Leu	Leu	Gly	Ser	Val	Glu	Gly	Gln	Ala	Gly	Ala	Arg	Gln	Leu	Ser
1				5					10					15	
Ser	Leu	Ala	Asn	Gly	Ala	Thr	Glu	Asp	Ser	Lys	Gln	Asp	Leu	Cys	Ser
			20					25					30		
Arg	Leu	His	Cys	Leu	Trp	Val	Glu	Pro	Arg	Glu	Ile	Asp	Asn	Ile	Arg
		35					40					45			
Pro	Phe	Arg	Ala	Lys	Thr	Asn	Ala	Ser	Phe	Ala	Gly	Cys	Ser	Leu	Thr
	50					55					60				
Glu	Arg	Leu	Leu	Gly	Gly	Leu	Cys	Arg	Gly	Trp	Met	Ser	Arg	Gly	His
65				70					75					80	
Pro	Pro	Glu	Pro	Ala	Trp	Gly	Pro	Gly	Ser	Glu	Ala	Ile	Gly	Pro	Val
				85				90						95	
Val	Ser	Arg	Phe	Ser	Cys	Arg	Leu	Gly	Glu	Arg	Gly	Gly	Ser	Arg	Asn
		100						105					110		
Thr	Glu	Glu	Val	Lys	Arg	Gln	Ser	Arg	Gly	Asp	Gly	Val	Pro	Gln	Arg
		115					120						125		
Arg	Arg	Ser	Thr	Glu	Ala	Glu	Val	Gln	Ala	Cys	Arg	His	Val	Asp	His
	130					135					140				
Glu	Tyr	Ser	Ala	Arg	Ser	Val	Gly	Val	Ser	Ser	Glu	Leu	His	Gln	Phe
145				150					155					160	
Pro	Gly	Tyr	Leu	Gly	Pro	Trp	Ile	Thr	Leu	Arg	Ser	Ala	Thr	Cys	Gln
			165					170					175		
Leu	Ile	Ser	Lys	Leu	Leu	Leu	Ala	Gly	Leu	Arg	Leu	Ser	Arg	Glu	His
		180						185					190		
Leu	Gly	Glu	Pro	Cys	Ala	Ala	Gly	Trp	Thr	Pro	Ala	His	Leu	Ala	Asp
		195					200					205			
Tyr	Ser	Cys	Phe	Cys	Ser	Pro	Val	Cys	Pro	Gln	Glu	Val	Arg	Ala	Cys

210	215	220
Leu Leu Phe Leu His Asp His Gly Arg Arg Gly Thr Asn Met Arg Val		
225	230	235
Leu Ala Ser Pro Gln Trp Trp Leu Pro Arg Ala Gly Glu Thr Leu Gly		
245	250	255
Glu Gly Leu Gly Gln Gly Pro Leu Ser Leu Ala Ala Thr Ala Trp Val		
260	265	270
Asn Cys Leu Ala Gly Leu Ala Ala Arg Ala Gln Lys Ala Glu Ala Leu		
275	280	285
Pro Ala Phe Ser Ser His Pro Ala Pro Met		
290	295	

&lt;210&gt; 4239

&lt;211&gt; 517

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4239

Met Asp Leu Gly Leu Tyr Trp Val Phe Leu Val Ala Ile Leu Glu Gly
1 5 10 15
Val Glu Cys Glu Val Gln Leu Glu Gln Ser Gly Gly Gly Leu Val Lys
20 25 30
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Leu
35 40 45
Ser Pro Tyr Glu Val Asn Trp Val Arg Arg Ala Pro Gly Lys Gly Leu
50 55 60
Glu Trp Ile Ala Tyr Ile Ser Ser Ser Gly Ser Lys Arg Tyr Tyr Gly
65 70 75 80

Asp	Ser	Val	Thr	Gly	Arg	Val	Ser	Ile	Ser	Arg	Asp	Ser	Ala	Gln	Asn
				85					90					95	
Ser	Val	Ser	Leu	Gln	Met	Ser	Gly	Leu	Arg	Val	Glu	Asp	Thr	Gly	Val
			100					105					110		
Tyr	Tyr	Cys	Ala	Arg	Val	Asp	Trp	Asn	His	Phe	Tyr	Phe	Phe	Met	Asp
		115					120					125			
Val	Trp	Gly	Lys	Gly	Thr	Thr	Val	Ile	Val	Ser	Ala	Ala	Ser	Thr	Lys
	130						135				140				
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Gly
145					150					155				160	
Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro
			165						170				175		
Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr
		180					185					190			
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val
	195						200				205				
Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn
	210						215				220				
Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Leu
225					230					235				240	
Lys	Thr	Pro	Leu	Gly	Asp	Thr	Thr	His	Thr	Cys	Pro	Arg	Cys	Pro	Glu
			245						250				255		
Pro	Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Glu	Pro
		260						265				270			
Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Glu	Pro	Lys
	275						280				285				
Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Ala	Pro	Glu	Leu
	290						295				300				
Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr

305                      310                      315                      320  
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val  
                         325                      330                      335  
Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr Val Asp Gly Val  
                         340                      345                      350  
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser  
                         355                      360                      365  
Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu  
                         370                      375                      380  
Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala  
385                      390                      395                      400  
Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro  
                         405                      410                      415  
Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln  
                         420                      425                      430  
Val Ile Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala  
                         435                      440                      445  
Val Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Asn Tyr Asn Thr Thr  
                         450                      455                      460  
Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu  
465                      470                      475                      480  
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe Ser Cys Ser  
                         485                      490                      495  
Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser  
                         500                      505                      510  
Leu Ser Pro Gly Lys  
                         515

&lt;210&gt; 4240

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4240

Met Ala Thr Glu Phe Ile Lys Ser Cys Cys Gly Gly Cys Phe Tyr Gly

1 5 10 15

Glu Thr Glu Lys His Asn Phe Ser Val Glu Arg Asp Phe Lys Ala Ala

20 25 30

Val Pro Asn Ser Gln Asn Ala Thr Ile Ser Val Pro Pro Leu Thr Ser

35 40 45

Val Ser Val Lys Pro Gln Leu Gly Cys Thr Glu Gly Tyr Leu Leu Ser

50 55 60

Lys Leu Pro Ser Asp Gly Lys Glu Val Pro Phe Val Val Pro Lys Phe

65 70 75 80

Lys Leu Ser Tyr Ile Gln Pro Arg Thr Gln Glu Thr Pro Ser His Leu

85 90 95

Glu Glu Leu Glu Gly Ser Ala Arg Ala Ser Phe Gly Asp Arg Lys Val

100 105 110

Glu Leu Ser Ser Ser Ser Gln His Gly Pro Ser Tyr Asp Val Tyr Asn

115 120 125

Pro Phe Tyr Met Tyr Gln His Ile Ser Pro Asp Leu Ser Arg Arg Phe

130 135 140

Pro Pro Arg Ser Glu Val Thr Arg Leu Tyr Gly Ser Val Cys Asp Leu

145 150 155 160

Arg Thr Asn Lys Leu Pro Gly Ser Pro Gly Leu Ser Lys Ser Met Phe

165 170 175

Asp Leu Thr Asn Ser Ser Gln Arg Phe Ile Gln Arg His Asp Ser Leu

180 185 190  
Ser Ser Val Pro Ser Ser Ser Ser Ser Arg Lys Asn Ser Gln Gly Ser  
195 200 205  
Asn Arg Ser Leu Asp Thr Ile Thr Leu Ser Gly Asp Glu Arg Asp Phe  
210 215 220  
Gly Arg Leu Asn Val Lys Leu Phe Tyr Asn Ser Ser Val Glu Gln Ile  
225 230 235 240  
Trp Ile Thr Val Leu Gln Cys Arg Asp Leu Ser Trp Pro Ser Ser Tyr  
245 250 255  
Gly Asp Thr Pro Thr Val Ser Ile Lys Gly Ile Leu Thr Leu Pro Lys  
260 265 270  
Pro Val His Phe Lys Ser Ser Ala Lys Glu Gly Ser Asn Val Cys His  
275 280 285  
Ala Glu Leu Glu Leu Gly Thr Cys Phe Gln Ala Val Asn Ser Arg Ile  
290 295 300  
Gln Leu Gln Ile Leu Glu Ala Arg Tyr Leu Pro Ser Ser Ser Thr Pro  
305 310 315 320  
Leu Thr Leu Ser Phe Phe Val Lys Val Gly Met Phe Ser Ser Gly Glu  
325 330 335  
Leu Ile Tyr Lys Lys Lys Thr Arg Leu Leu Lys Ala Ser Asn Gly Arg  
340 345 350  
Val Lys Trp Gly Glu Thr Met Ile Phe Pro Leu Ile Gln Ser Glu Lys  
355 360 365  
Glu Ile Val Phe Leu Ile Lys Leu Tyr Ser Arg Ser Ser Val Arg Arg  
370 375 380  
Lys His Phe Val Gly Gln Ile Trp Ile Ser Glu Asp Ser Asn Asn Ile  
385 390 395 400  
Glu Ala Val Asn Gln Trp Lys Glu Thr Val Ile Asn Pro Glu Lys Val  
405 410 415

Val Ile Arg Trp His Lys Leu Asn Pro Ser

420

425

<210> 4241

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4241

Met Asn Glu Arg Gln Gly Leu Ala Leu Leu Pro Arg Leu Gln Cys Ser

1

5

10

15

Gly Lys Ile Ser Ala His Cys Ser Leu Lys His Leu Gly Ser Ser Asp

20

25

30

Pro Pro Thr Phe Ala Ser Gln Val Ala Gly Thr Thr Gly Val His Gln

35

40

45

His Val Tyr Leu Ile Phe Val Phe Phe Val Glu Met Gly Ser His Asn

50

55

60

Val Val Gln Ala Gly Leu Lys His Leu Gly Ser Ser Asp Pro Pro Thr

65

70

75

80

Ser Ala Ser Gln Ser Ala Gly Ile Ile Gly Leu Ser His Gln Ala Thr

85

90

95

Arg Pro Val Cys Leu Phe Ile Tyr Leu Gln Ser Leu Thr Leu Leu Pro

100

105

110

Arg Leu

<210> 4242

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4242

Met Leu Leu Ala Lys His Val Val Lys His Tyr Gly Gln Gln Met Lys

1 5 10 15

Leu Ser Met Lys His Gln Leu Pro Lys Met Lys Thr Phe His Glu Pro

20 25 30

Thr Thr Ile Leu Gly Asn Ser Leu Pro Lys Cys Thr Glu Ile Lys Pro

35 40 45

Glu Val Asn Thr Leu Thr Ala Glu Asn Lys Leu Trp Asp Asp Ala Lys

50 55 60

Asn Gly Phe Ala Arg Cys Thr Ala Ala Glu Ile Gln Arg Phe Ala Phe

65 70 75 80

Ser Ala Thr Gly Leu Leu Ser His Val Glu Glu Gly Leu Asp Ser Asp

85 90 95

Ala Thr Asp Ser Ser Ser Asp Asp Asp Leu Asp Glu Tyr Thr Leu Arg

100 105 110

Lys Asn Val Ala Val

115

&lt;210&gt; 4243

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4243



Met Gly Leu Leu Ala Phe Arg Asp Val Ala Leu Glu Phe Ser Pro Glu  
 1 5 10 15  
 Glu Trp Glu Cys Leu Asp Pro Ala Gln Arg Ser Leu Tyr Arg Asp Val  
 20 25 30  
 Met Leu Glu Asn Tyr Arg Asn Leu Ile Ser Leu Gly Leu Ala Met Ser  
 35 40 45  
 Lys Pro Glu Leu Ile Ile Cys Leu Glu Ala Arg Lys Glu Pro Trp Asn  
 50 55 60  
 Val Asn Thr Glu Lys Thr Ala Lys His Ser Val Ala Thr Arg Phe Arg  
 65 70 75 80  
 His Val Gly Gln Ala Gly Leu Lys Leu Leu Thr Ser Gly Asp Pro Pro  
 85 90 95  
 Ala Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Thr Gly His His Cys  
 100 105 110  
 Gln Pro Ile Cys Val Phe  
 115

<210> 4244

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4244

Met Ser Gly Ser Asn Pro Lys Ala Ala Ala Ala Ala Ser Ala Ala Gly  
 1 5 10 15  
 Pro Gly Gly Leu Val Ala Gly Lys Glu Glu Lys Lys Lys Ala Gly Gly  
 20 25 30  
 Gly Val Leu Asn Arg Leu Lys Ala Arg Arg Gln Ala Pro His His Ala

35	40	45
Ala Asp Asp Gly Val Gly	Ala Ala Val Thr Glu Gln Glu Leu Leu Ala	
50	55	60
Leu Asp Thr Ile Arg Pro Glu His Val Leu Arg Leu Ser Trp Val Thr		
65	70	75
Glu Asn Tyr Leu Cys Lys Pro Glu Asp Asn Ile Tyr Ser Ile Asp Phe		
85	90	95
Thr Arg Phe Lys Ile Arg Asp Leu Glu Thr Gly Thr Val Leu Phe Glu		
100	105	110
Ile Ala Lys Pro Cys Val Ser Asp Gln Glu Glu Asp Glu Glu Glu Gly		
115	120	125
Gly Gly Asp Val Asp Ile Ser Ala Gly Arg Phe Val Arg Tyr Gln Phe		
130	135	140
Thr Pro Ala Phe Leu Arg Leu Arg Thr Val Gly Ala Thr Val Glu Phe		
145	150	155
Thr Val Gly Asp Lys Pro Val Ser Asn Phe Arg Met Ile Glu Arg His		
165	170	175
Tyr Phe Arg Glu His Leu Leu Lys Asn Phe Asp Phe Asp Phe Gly Phe		
180	185	190
Cys Ile Pro Ser Ser Arg Asn Thr Cys Glu His Ile Tyr Glu Phe Pro		
195	200	205
Gln Leu Ser Glu Asp Val Ile Arg Leu Met Ile Glu Asn Pro Tyr Glu		
210	215	220
Thr Arg Ser Asp Ser Phe Tyr Phe Val Asp Asn Lys Leu Ile Met His		
225	230	235
Asn Lys Ala Asp Tyr Ala Tyr Asn Gly Gly Gln		
245	250	

&lt;210&gt; 4245

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4245

Met Glu Phe Ala Val Phe Cys Leu Arg Arg Arg Arg Met Gly Arg Gln

1 5 10 15

Val Ser Cys Pro Val Gly Leu Gly Val Ile Val Gly Val Thr Leu His

20 25 30

Leu Asn Leu Ser Ala Leu Pro Ser Ser Ser Ser Ala Ser Ala Trp Ser

35 40 45

Glu Thr Leu Ser Leu Trp Lys Val Thr Pro Gly Arg Ile His Leu Leu

50 55 60

Ser Cys Phe His His Gly Ile Leu Ala Cys Ala Gly Val Ser Pro Ser

65 70 75 80

Ser Ser Ser Cys Ala Leu Arg Ile His Cys Cys Trp Tyr Ala Leu Ser

85 90 95

Ser Ala Leu Glu Leu Ala Gln Val Pro Leu Asp Ile His Thr Thr Asn

100 105 110

Ser Leu Ala Leu Gln Arg Trp Thr Arg Cys Leu Phe Asn Ser Leu Tyr

115 120 125

Cys His Phe His Pro Ser Glu Ala Phe Cys Ser

130 135

&lt;210&gt; 4246

&lt;211&gt; 127

&lt;212&gt; PRT

<213> Homo sapiens

<400> 4246

Met	Asp	Lys	Lys	Ile	Ser	Ile	Leu	Lys	Asp	His	Gly	Tyr	Ile	Glu	Asn
1				5					10					15	
Leu	Thr	Phe	Gly	Trp	Asp	Gly	Pro	Ser	Trp	Arg	Leu	Leu	Thr	Ala	Leu
			20					25					30		
Lys	Leu	Leu	Cys	Leu	Glu	Ala	Glu	Lys	Phe	Thr	Cys	Trp	Lys	Lys	Val
			35					40					45		
Leu	Leu	Gly	Glu	Val	Ile	Ser	Asp	Thr	Asn	Glu	Lys	Thr	Ser	Leu	Asp
			50				55					60			
Ile	Ala	Gln	Lys	Ile	Cys	Tyr	Tyr	Phe	Ile	Glu	Glu	Thr	Asn	Ala	Val
			65			70				75				80	
Leu	Gln	Lys	Val	Ser	His	Met	Lys	Asp	Glu	Lys	Glu	Ala	Leu	Ile	Asn
					85				90					95	
Gln	Leu	Thr	Leu	Val	Glu	Ser	Leu	Trp	Thr	Glu	Glu	Leu	Lys	Ile	Leu
			100					105					110		
Arg	Ala	Ser	Ala	Glu	Thr	Leu	His	Ser	Leu	Gln	Thr	Ala	Phe	Thr	
			115					120					125		

<210> 4247

<211> 282

<212> PRT

<213> Homo sapiens

<400> 4247

Met	Arg	Gln	Leu	Leu	Ser	Gln	Pro	Arg	Ser	Lys	Thr	Met	Cys	Leu	Lys
1					5					10				15	

Cys Asp Leu Gln Glu Arg Leu Leu Cys Pro Ser Leu Leu Ala Gly Thr  
                     20                                    25                                    30  
 Ala Asp Gly Ser Leu Arg Met Asp Asp Pro Lys Gly Asp Phe Ile Thr  
                     35                                    40                                    45  
 Leu Tyr Gln Met Ala Ser Gln Ser Ser Ala Ser His Tyr Lys Leu Gln  
                     50                                    55                                    60  
 Val Ile Lys Ala Leu Lys Ser Ser Gly Leu Cys Glu Ser Leu Thr Tyr  
                     65                                    70                                    75                                    80  
 Gly Leu Pro Phe Ile Leu Arg Pro Thr Ser Cys Trp Gln Leu Asp Trp  
                                     85                                    90                                    95  
 Asp Glu Leu Glu Thr Asn Gln Gln His Phe His Ala Leu Cys His Ser  
                     100                                    105                                    110  
 Leu Leu Lys Arg Glu Trp Leu Leu Leu Ala Lys Gly Glu Pro Pro Gly  
                     115                                    120                                    125  
 Pro Gly His Ser Gln Arg Ile Pro Ala Ser Thr Phe Tyr Val Ile Met  
                     130                                    135                                    140  
 Pro Ser His Ser Leu Thr Leu Leu Val Lys Ala Val Ala Thr Arg Glu  
                     145                                    150                                    155                                    160  
 Leu Met Leu Pro Ser Thr Phe Pro Leu Leu Pro Glu Asp Pro His Asp  
                                     165                                    170                                    175  
 Asp Ser Leu Lys Asn Val Glu Ser Met Leu Asp Ser Leu Glu Leu Glu  
                     180                                    185                                    190  
 Pro Thr Tyr Asn Pro Leu His Val Gln Ser His Leu Tyr Ser His Leu  
                     195                                    200                                    205  
 Ser Ser Ile Tyr Ala Lys Pro Gln Gly Arg Leu His Pro His Trp Glu  
                     210                                    215                                    220  
 Ser Arg Ala Pro Arg Lys Thr Gly Gln Leu Gln Thr Asn Arg Ala Arg  
                     225                                    230                                    235                                    240  
 Ala Thr Val Ala Pro Leu Pro Met Thr Pro Val Pro Gly Arg Ala Ser

245 250 255  
 Lys Met Pro Ala Ala Ser Lys Ser Ser Ser Asp Ala Phe Phe Leu Pro  
 260 265 270  
 Ser Glu Trp Glu Lys Asp Pro Ser Arg Pro  
 275 280

<210> 4248

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4248

Met Gly Leu Tyr Ala Ala Ala Ala Gly Val Leu Ala Gly Val Glu Ser  
 1 5 10 15  
 Arg Gln Gly Ser Ile Lys Gly Leu Val Tyr Ser Ser Asn Phe Gln Asn  
 20 25 30  
 Val Lys Gln Leu Tyr Ala Leu Val Cys Glu Thr Gln Arg Tyr Ser Ala  
 35 40 45  
 Val Leu Asp Ala Val Ile Ala Ser Ala Gly Leu Leu Arg Ala Glu Lys  
 50 55 60  
 Lys Leu Arg Pro His Leu Ala Lys Val His Arg Gly Val Ser Arg Asn  
 65 70 75 80  
 Glu Asp Leu Leu Glu Val Gly Ser Arg Pro Gly Pro Ala Ser Gln Leu  
 85 90 95  
 Pro Arg Phe Val Arg Val Asn Thr Leu Lys Thr Cys Ser Asp Asp Val  
 100 105 110  
 Val Asp Tyr Phe Lys Arg Gln Gly Phe Ser Tyr Gln Gly Arg Ala Ser  
 115 120 125

Ser Leu Asp Asp Leu Arg Ala Leu Lys Gly Lys His Phe Leu Leu Asp  
130 135 140  
Pro Leu Met Pro Glu Leu Leu Val Phe Pro Ala Gln Thr Asp Leu His  
145 150 155 160  
Glu His Pro Leu Tyr Arg Ala Gly His Leu Ile Leu Gln Asp Arg Ala  
165 170 175  
Ser Cys Leu Pro Ala Met Leu Leu Asp Pro Pro Pro Gly Ser His Val  
180 185 190  
Ile Asp Ala Cys Ala Ala Pro Gly Asn Lys Thr Ser His Leu Ala Ala  
195 200 205  
Leu Leu Lys Asn Gln Gly Lys Ile Phe Ala Phe Asp Leu Asp Ala Lys  
210 215 220  
Arg Leu Ala Ser Met Ala Thr Leu Leu Ala Arg Ala Gly Val Ser Cys  
225 230 235 240  
Cys Glu Leu Ala Glu Glu Asp Phe Leu Ala Val Ser Pro Ser Asp Pro  
245 250 255  
Arg Tyr His Glu Val His Tyr Ile Leu Leu Asp Pro Ser Cys Ser Gly  
260 265 270  
Ser Gly Met Pro Ser Arg Gln Leu Glu Glu Pro Gly Ala Gly Thr Pro  
275 280 285  
Ser Pro Val Arg Leu His Ala Leu Ala Gly Phe Gln Gln Arg Ala Leu  
290 295 300  
Cys His Ala Leu Thr Phe Pro Ser Leu Gln Arg Leu Val Tyr Ser Thr  
305 310 315 320  
Cys Ser Leu Cys Gln Glu Glu Asn Glu Asp Val Val Arg Asp Ala Leu  
325 330 335  
Gln Gln Asn Pro Gly Ala Phe Arg Leu Ala Pro Ala Leu Pro Ala Trp  
340 345 350  
Pro His Arg Gly Leu Ser Thr Phe Pro Gly Ala Glu His Cys Leu Arg

355                      360                      365  
 Ala Ser Pro Glu Thr Thr Leu Ser Ser Gly Phe Phe Val Ala Val Ile  
 370                      375                      380  
 Glu Arg Ala Glu Val Pro Arg  
 385                      390

<210> 4249

<211> 507

<212> PRT

<213> Homo sapiens

<400> 4249

Met Glu Phe Leu Leu Gly Asn Pro Phe Ser Thr Pro Val Gly Gln Cys  
 1                      5                      10                      15  
 Leu Glu Lys Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu  
 20                      25                      30  
 Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys  
 35                      40                      45  
 Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr  
 50                      55                      60  
 Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn  
 65                      70                      75                      80  
 Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp  
 85                      90                      95  
 Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile  
 100                      105                      110  
 Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe  
 115                      120                      125



Arg Ser Ser Pro Asp Leu Thr Gly Val Val His Ile Tyr Glu Glu Leu  
130 135 140  
Lys Arg Lys Gly Val Glu Phe Pro Met Ala Asp Leu Asp Ala Leu Ser  
145 150 155 160  
Pro Ile His Thr Pro Gln Arg Ser Val Pro Glu Val Asp Pro Ala Ala  
165 170 175  
Thr Met Pro Arg Ser Gln Ser Gln Gln Arg Thr Ser Ala Gly Ser Tyr  
180 185 190  
Ser Ser Pro Pro Pro Ala Pro Tyr Ser Ala Pro Gln Ala Pro Ala Leu  
195 200 205  
Ser Val Thr Gly Pro Ile Thr Ala Asn Ser Glu Gln Ile Ala Arg Leu  
210 215 220  
Arg Ser Glu Leu Asp Val Val Arg Gly Asn Thr Lys Val Met Ser Glu  
225 230 235 240  
Met Leu Thr Glu Met Val Pro Gly Gln Glu Asp Ser Ser Asp Leu Glu  
245 250 255  
Leu Leu Gln Glu Leu Asn Arg Thr Cys Arg Ala Met Gln Gln Arg Ile  
260 265 270  
Val Glu Leu Ile Ser Arg Val Ser Asn Glu Glu Val Thr Glu Glu Leu  
275 280 285  
Leu His Val Asn Asp Asp Leu Asn Asn Val Phe Leu Arg Tyr Glu Arg  
290 295 300  
Phe Glu Arg Tyr Arg Ser Gly Arg Ser Val Gln Asn Ala Ser Asn Gly  
305 310 315 320  
Val Leu Asn Glu Val Thr Glu Asp Asn Leu Ile Asp Leu Gly Pro Gly  
325 330 335  
Ser Pro Ala Val Val Ser Pro Met Val Gly Asn Thr Ala Pro Pro Ser  
340 345 350  
Ser Leu Ser Ser Gln Leu Ala Gly Leu Asp Leu Gly Thr Glu Ser Val

355 360 365  
Ser Gly Thr Leu Ser Ser Leu Gln Gln Cys Asn Pro Arg Asp Gly Phe  
370 375 380  
Asp Met Phe Ala Gln Thr Arg Gly Asn Ser Leu Ala Glu Gln Arg Lys  
385 390 395 400  
Thr Val Thr Tyr Glu Asp Pro Gln Ala Val Gly Gly Leu Ala Ser Ala  
405 410 415  
Leu Asp Asn Arg Lys Gln Ser Ser Glu Gly Ile Pro Val Ala Gln Pro  
420 425 430  
Ser Val Met Asp Asp Ile Glu Val Trp Leu Arg Thr Asp Leu Lys Gly  
435 440 445  
Asp Asp Leu Glu Glu Gly Val Thr Ser Glu Glu Phe Asp Lys Phe Leu  
450 455 460  
Glu Glu Arg Ala Lys Ala Ala Glu Met Val Pro Asp Leu Pro Ser Pro  
465 470 475 480  
Pro Met Glu Ala Pro Ala Pro Ala Ser Asn Pro Ser Gly Arg Lys Lys  
485 490 495  
Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala Leu  
500 505

&lt;210&gt; 4250

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4250

Met Glu Val Ser Tyr Thr Pro Leu Thr Val Phe Ser Ser Ser Val Val  
1 5 10 15

Thr Lys Pro Tyr Pro Ser Leu Ser Ile Arg Ser Thr Ile Phe Pro Ser  
                     20                    25                    30  
 Leu Ser Ser Leu Ser Ser Gly Val Ser Ser Ser Lys Phe Leu Glu Ser  
                     35                    40                    45  
 Phe Leu Pro Arg Lys Ala Ser Trp Ser Tyr Trp Lys Leu Trp Leu Ser  
                     50                    55                    60  
 Ser Gly Gly Arg Ser Pro Ser Ser Glu Ser Gly Arg Thr Thr Arg Ser  
                     65                    70                    75                    80  
 Leu Arg Thr Val Gly Leu Ala Arg Arg Thr Arg Gly Ala Ser Thr Ser  
                                     85                    90                    95  
 Ala Ser Ser Ser Pro Arg Ala Asn Pro Gly Gly His Arg Ala Pro Ser  
                     100                    105                    110  
 Ser Arg Gly Glu Gly Gly Arg Glu Gly Asp Ala Glu Arg Ala Thr Thr  
                     115                    120                    125  
 Ala Ala Ala Arg Glu Trp Gly Leu Gly Ala Arg Arg Pro Ser Phe Met  
                     130                    135                    140  
 Leu Cys Ile Phe Tyr Lys  
                     145                    150

<210> 4251

<211> 716

<212> PRT

<213> Homo sapiens

<400> 4251

Met Leu Lys Asp Tyr Leu Val Val Ala Gln Glu Ala Leu Ser Ala Gln  
                     1                    5                    10                    15  
 Lys Glu Ile Tyr Gln Val Lys Gln Gln Arg Leu Glu Leu Ala Gln Gln

20	25	30
Glu Tyr Gln Gln Leu His Ala Val Trp Glu His Lys Leu Gly Ser Gln		
35	40	45
Val Ser Leu Val Ser Gly Ser Ser Ser Ser Ser Lys Tyr Asp Pro Glu		
50	55	60
Ile Leu Lys Ala Glu Ile Ala Thr Ala Lys Ser Arg Val Asn Lys Leu		
65	70	75
Lys Arg Glu Met Val His Leu Gln His Glu Leu Gln Phe Lys Glu Arg		
85	90	95
Gly Phe Gln Thr Leu Lys Lys Ile Asp Lys Lys Met Ser Asp Ala Gln		
100	105	110
Gly Ser Tyr Lys Leu Asp Glu Ala Gln Ala Val Leu Arg Glu Thr Lys		
115	120	125
Ala Ile Lys Lys Ala Ile Thr Cys Gly Glu Lys Glu Lys Gln Asp Leu		
130	135	140
Ile Lys Ser Leu Ala Met Leu Lys Asp Gly Phe Arg Thr Asp Arg Gly		
145	150	155
Ser His Ser Asp Leu Trp Ser Ser Ser Ser Ser Leu Glu Ser Ser Ser		
165	170	175
Phe Pro Leu Pro Lys Gln Tyr Leu Asp Val Ser Ser Gln Thr Asp Ile		
180	185	190
Ser Gly Ser Phe Gly Ile Asn Ser Asn Asn Gln Leu Ala Glu Lys Val		
195	200	205
Arg Leu Arg Leu Arg Tyr Glu Glu Ala Lys Arg Arg Ile Ala Asn Leu		
210	215	220
Lys Ile Gln Leu Ala Lys Leu Asp Ser Glu Ala Trp Pro Gly Val Leu		
225	230	235
Asp Ser Glu Arg Asp Arg Leu Ile Leu Ile Asn Glu Lys Glu Glu Leu		
245	250	255

Leu Lys Glu Met Arg Phe Ile Ser Pro Arg Lys Trp Thr Gln Gly Glu  
 260 265 270  
 Val Glu Gln Leu Glu Met Ala Arg Lys Arg Leu Glu Lys Asp Leu Gln  
 275 280 285  
 Ala Ala Arg Asp Thr Gln Ser Lys Ala Leu Thr Glu Arg Leu Lys Leu  
 290 295 300  
 Asn Ser Lys Arg Asn Gln Leu Val Arg Glu Leu Glu Glu Ala Thr Arg  
 305 310 315 320  
 Gln Val Ala Thr Leu His Ser Gln Leu Lys Ser Leu Ser Ser Ser Met  
 325 330 335  
 Gln Ser Leu Ser Ser Gly Ser Ser Pro Gly Ser Leu Thr Ser Ser Arg  
 340 345 350  
 Gly Ser Leu Val Ala Ser Ser Leu Asp Ser Ser Thr Ser Ala Ser Phe  
 355 360 365  
 Thr Asp Leu Tyr Tyr Asp Pro Phe Glu Gln Leu Asp Ser Glu Leu Gln  
 370 375 380  
 Ser Lys Val Glu Phe Leu Leu Leu Glu Gly Ala Thr Gly Phe Arg Pro  
 385 390 395 400  
 Ser Gly Cys Ile Thr Thr Ile His Glu Asp Glu Val Ala Lys Thr Gln  
 405 410 415  
 Lys Ala Glu Gly Gly Gly Arg Leu Gln Ala Leu Arg Ser Leu Ser Gly  
 420 425 430  
 Thr Pro Lys Ser Met Thr Ser Leu Ser Pro Arg Ser Ser Leu Ser Ser  
 435 440 445  
 Pro Ser Pro Pro Cys Ser Pro Leu Met Ala Asp Pro Leu Leu Ala Gly  
 450 455 460  
 Asp Ala Phe Leu Asn Ser Leu Glu Phe Glu Asp Pro Glu Leu Ser Ala  
 465 470 475 480  
 Thr Leu Cys Glu Leu Ser Leu Gly Asn Ser Ala Gln Glu Arg Tyr Arg

485	490	495
Leu Glu Glu Pro Gly Thr Glu Gly Lys Gln Leu Gly Gln Ala Val Ser		
500	505	510
Thr Ala Gln Gly Cys Gly Leu Lys Val Ala Cys Val Ser Ala Ala Val		
515	520	525
Ser Asp Glu Ser Val Ala Gly Asp Ser Gly Val Tyr Glu Ala Ser Val		
530	535	540
Gln Arg Leu Gly Ala Ser Glu Ala Ala Ala Phe Asp Ser Asp Glu Ser		
545	550	555
Glu Ala Val Gly Ala Thr Arg Ile Gln Ile Ala Leu Lys Tyr Asp Glu		
565	570	575
Lys Asn Lys Gln Phe Ala Ile Leu Ile Ile Gln Leu Ser Asn Leu Ser		
580	585	590
Ala Leu Leu Gln Gln Gln Asp Gln Lys Val Asn Ile Arg Val Ala Val		
595	600	605
Leu Pro Cys Ser Glu Ser Thr Thr Cys Leu Phe Arg Thr Arg Pro Leu		
610	615	620
Asp Ala Ser Asp Thr Leu Val Phe Asn Glu Val Phe Trp Val Ser Met		
625	630	635
Ser Tyr Pro Ala Leu His Gln Lys Thr Leu Arg Val Asp Val Cys Thr		
645	650	655
Thr Asp Arg Ser His Leu Glu Glu Cys Leu Gly Gly Ala Gln Ile Ser		
660	665	670
Leu Ala Glu Val Cys Arg Ser Gly Glu Arg Ser Thr Arg Trp Tyr Asn		
675	680	685
Leu Leu Ser Tyr Lys Tyr Leu Lys Lys Gln Ser Arg Met Phe Ser Pro		
690	695	700
Arg Lys Pro His Leu Ile Trp Met Gly Thr Gln His		
705	710	715

&lt;210&gt; 4252

&lt;211&gt; 286

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4252

Met Glu Asp Arg His Val Ser Leu Pro Ser Phe Asn Gln Leu Phe Gly

1 5 10 15

Leu Ser Asp Pro Val Asn Arg Ala Tyr Phe Ala Val Phe Asp Gly His

20 25 30

Gly Gly Val Asp Ala Ala Arg Tyr Ala Ala Val His Val His Thr Asn

35 40 45

Ala Ala Arg Gln Pro Glu Leu Pro Thr Asp Pro Glu Gly Ala Leu Arg

50 55 60

Glu Ala Phe Arg Arg Thr Asp Gln Met Phe Leu Arg Lys Ala Lys Arg

65 70 75 80

Glu Arg Leu Gln Ser Gly Thr Thr Gly Val Cys Ala Leu Ile Ala Gly

85 90 95

Ala Thr Leu His Val Ala Trp Leu Gly Asp Ser Gln Val Ile Leu Val

100 105 110

Gln Gln Gly Gln Val Val Lys Leu Met Glu Pro His Arg Pro Glu Arg

115 120 125

Gln Asp Glu Lys Ala Arg Ile Glu Ala Leu Gly Gly Phe Val Ser His

130 135 140

Met Asp Cys Trp Arg Val Asn Gly Thr Leu Ala Val Ser Arg Ala Ile

145 150 155 160

Gly Asp Val Phe Gln Lys Pro Tyr Val Ser Gly Glu Ala Asp Ala Ala

165	170	175
Ser Arg Ala Leu Thr Gly Ser Glu Asp Tyr Leu Leu Leu Ala Cys Asp		
180	185	190
Gly Phe Phe Asp Val Val Pro His Gln Glu Val Val Gly Leu Val Gln		
195	200	205
Ser His Leu Thr Arg Gln Gln Gly Ser Gly Leu Arg Val Ala Glu Glu		
210	215	220
Leu Val Ala Ala Ala Arg Glu Arg Gly Ser His Asp Asn Ile Thr Val		
225	230	235
240		
Met Val Val Phe Leu Arg Asp Pro Gln Glu Leu Arg Glu Gly Gly Asn		
245	250	255
Gln Gly Glu Gly Asp Pro Gln Ala Glu Gly Arg Arg Gln Asp Leu Pro		
260	265	270
Ser Ser Leu Pro Glu Pro Glu Thr Gln Ala Pro Pro Arg Ser		
275	280	285

&lt;210&gt; 4253

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4253

Met Pro His Pro Val Pro Met Ile Thr Pro Ser Pro Val Pro Phe Thr		
1	5	10
15		
Ala Lys Leu Leu Glu Ser Ser Phe Cys Thr Ser Cys Leu Leu Phe Leu		
20	25	30
Cys Ser His Pro Cys Ser Ser Pro Phe Gln Ala Gly Ser His Pro Asp		
35	40	45



Cys Leu Thr Glu Thr Val Leu Cys Arg Ser Pro Ala Lys Ser Leu Leu  
 50 55 60  
 Pro Pro Pro Ala Ala Ser Phe Cys Pro His Pro Leu Gly Pro Val Ser  
 65 70 75 80  
 Ser Ile Arg Gly Asn Arg Gln His Leu Leu Ser Cys Ser Pro Val Met  
 85 90 95  
 Ala Gly His Val Val Leu Gly Arg Leu Ala Trp  
 100 105

<210> 4254

<211> 229

<212> PRT

<213> Homo sapiens

<400> 4254

Met Gly Pro Glu Gln Ile Leu Pro Thr Gly Ser Glu His Val Leu Pro  
 1 5 10 15  
 Thr Gly Ser Glu Gln Ile Leu Pro Thr Gly Ser Glu Gln Ile Leu Pro  
 20 25 30  
 Met Gly Ser Glu Gln Ile Leu Pro Met Pro Ser Glu Gln Val Leu Pro  
 35 40 45  
 Met Gly Ser Glu His Val Leu Pro Thr Gly Ser Glu Gln Val Leu Pro  
 50 55 60  
 Thr Gly Ser Glu Gln Val Leu Pro Thr Gly Ser Glu His Val Leu Pro  
 65 70 75 80  
 Thr Gly Ser Glu Gln Val Leu Leu Pro Thr Gly Ser Asp His Val Leu  
 85 90 95  
 Pro Thr Gly Ser Glu His Val Leu Ser Thr Gly Ser Glu Gln Val Leu

100	105	110	
Pro Met Gly Ser Glu His Val Leu	Pro Thr Gly Ser Glu Gln Val Leu		
115	120	125	
Pro Thr Gly Ser Met Ser Ser Pro Arg Gly Leu Ser Met Ser Ser Pro			
130	135	140	
Trp Val Leu Ser Lys Ser Ser Pro Trp Gly Leu Ser Lys Ser Ser Pro			
145	150	155	160
Arg Gly Leu Ser Lys Ser Ser Pro Trp Gly Leu Ser Lys Ser Phe Leu			
165	170	175	
Cys Arg Leu Ser Thr Ser Ser Pro Ser Cys Asp Arg Val Ser Leu Leu			
180	185	190	
Gln Val Glu Asp Val Ala Arg Met His Leu Glu Gly Thr Pro Ala Ser			
195	200	205	
Pro Glu Arg Pro Leu Leu Val Ala Trp Gly Val Ala Gly Trp Ser Gly			
210	215	220	
Val Leu Gly Ala Leu			
225			

&lt;210&gt; 4255

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4255

Met Gly Gln Asp Arg Ala Gly Ile Ala Val Thr Gly Trp Trp Lys Ile			
1	5	10	15
Leu Gln Lys His Leu Phe Cys Leu Glu Gly Pro Asn Ser Phe Lys Asn			
20	25	30	

Met Cys Leu Ala Lys Ala His Ile Ser Gln Asn Leu Cys Lys Tyr Leu  
 35 40 45  
 Glu Ala Phe Leu Leu Phe Tyr Val Asp Val Glu Ala Lys Glu Arg Lys  
 50 55 60  
 Met Trp Pro His Val Cys Phe Gln Leu Leu Ile Ser Lys Tyr Leu Ala  
 65 70 75 80  
 Phe Ser Gly Met Arg Thr Asn Gln Ile Thr Phe Val Arg Tyr Ala Val  
 85 90 95  
 Pro Leu Asp Cys Ser Leu Ser Phe Gly  
 100 105

&lt;210&gt; 4256

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4256

Met Leu Phe Arg Ser Leu Pro Gly Asn Phe Asp Met Val His Val Phe  
 1 5 10 15  
 Thr Gln Asn Pro Ile Lys Gln Gly Ser Leu Ala Val Gln Phe Pro Pro  
 20 25 30  
 Val Leu Leu Ser Gly Trp Ile Gly Glu Gly Gly His Pro Ser Gln Leu  
 35 40 45  
 Ser Ala Ser Thr Gln Pro Leu Trp Ala Met Trp Trp Gln Lys Gln Lys  
 50 55 60  
 Ala Arg Gln Ala Pro Trp Glu Pro Gly Thr Leu Asp His Glu Ala Leu  
 65 70 75 80  
 His Leu Ser Glu Leu Gly Phe Pro Ser Phe Lys Lys Ile Phe Arg Arg

	85	90	95
Gly Val Val Ala His Thr Cys Asn Pro Ser Thr Leu Gly Gly			
100	105	110	

&lt;210&gt; 4257

&lt;211&gt; 278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4257

Met Thr Asp Leu Asn Lys His Ile Lys Gln Ala Gln Thr Gln Arg Lys			
1	5	10	15
Gln Leu Leu Glu Glu Ser Arg Glu Leu His Arg Glu Lys Leu Leu Val			
20	25	30	
Gln Ala Glu Asn Arg Phe Phe Leu Glu Tyr Leu Thr Asn Lys Thr Glu			
35	40	45	
Glu Tyr Thr Glu Gln Pro Glu Lys Val Trp Asn Ser Tyr Leu Gln Lys			
50	55	60	
Ser Gly Glu Ile Glu Arg Arg Arg Gln Glu Ser Ala Ser Arg Tyr Ala			
65	70	75	80
Glu Gln Ile Ser Val Leu Lys Thr Ala Leu Leu Gln Lys Glu Asn Ile			
85	90	95	
Gln Ser Ser Leu Lys Arg Lys Leu Gln Ala Met Arg Asp Ile Ala Ile			
100	105	110	
Leu Lys Glu Lys Gln Glu Lys Glu Ile Gln Thr Leu Gln Glu Glu Thr			
115	120	125	
Lys Lys Val Gln Ala Glu Thr Ala Ser Lys Thr Arg Glu Val Gln Ala			
130	135	140	

Gln Leu Leu Gln Glu Lys Arg Leu Leu Glu Lys Gln Leu Ser Glu Pro  
 145                      150                      155                      160  
 Asp Arg Arg Leu Leu Gly Lys Arg Lys Arg Arg Glu Leu Asn Met Lys  
                          165                      170                      175  
 Ala Gln Ala Leu Lys Leu Ala Ala Lys Arg Phe Ile Phe Glu Tyr Ser  
                          180                      185                      190  
 Cys Gly Ile Asn Arg Glu Asn Gln Gln Phe Lys Lys Glu Leu Leu Gln  
                          195                      200                      205  
 Leu Ile Glu Gln Ala Gln Lys Leu Thr Ala Thr Gln Ser His Leu Glu  
                          210                      215                      220  
 Asn Arg Lys Gln Gln Leu Gln Gln Glu Gln Trp Tyr Leu Glu Ser Leu  
 225                      230                      235                      240  
 Ile Gln Ala Arg Gln Arg Leu Gln Gly Ser His Asn Gln Cys Leu Asn  
                          245                      250                      255  
 Arg Gln Asp Val Pro Lys Thr Thr Pro Ser Leu Pro Gln Gly Thr Lys  
                          260                      265                      270  
 Ser Arg Ile Asn Pro Lys  
                          275

<210> 4258

<211> 327

<212> PRT

<213> Homo sapiens

<400> 4258

Met Ser Leu Met Thr Arg Glu Asn Leu Ala Phe Arg Gly Ser Leu Met  
 1                      5                      10                      15  
 Gly Cys Ser Glu Leu Lys Pro Phe Gln Glu Leu Thr His Gln Ser Ala

20	25	30	
Val Ser His Ser Arg Ala Asp Val Ala Asp Val Trp Trp Tyr Cys Gly			
35	40	45	
Gly Pro Leu Leu Asp Thr Leu Pro Ser Asn Trp Ser Gly Thr Cys Thr			
50	55	60	
Leu Val Gln Phe Ala Ile Pro Phe Ala Leu Ala Phe Leu Gln Pro Glu			
65	70	75	80
Lys Glu Lys Pro Gln His Arg Lys Ile Arg Glu Ala Pro Tyr Gly Ser			
85	90	95	
Phe Asp Ser Gln Val Tyr Leu Asp Ala Thr Gly Val Pro Gln Gly Val			
100	105	110	
Pro His Lys Phe Lys Ala Gln Asp Gln Ile Ala Ala Gly Phe Glu Ser			
115	120	125	
Ile Phe Trp Trp Val Thr Ile Ser Lys Asn Ile Asp Trp Ile Asn Tyr			
130	135	140	
Ile Tyr Tyr Asn Gln Gln Arg Phe Ile Asn Tyr Thr Arg Asp Ala Val			
145	150	155	160
Lys Gly Ile Ala Glu Gln Leu Gly Pro Thr Ser Gln Met Ala Trp Glu			
165	170	175	
Asn Arg Met Ala Leu Asp Met Ile Leu Ala Lys Lys Gly Gly Val Cys			
180	185	190	
Val Met Ile Lys Thr Gln Cys Cys Thr Phe Ile Pro Asn Asn Thr Ala			
195	200	205	
Pro Ser Gly Ser Ile Thr Arg Ala Leu Gln Gly Leu Thr Ala Leu Ser			
210	215	220	
Asn Glu Leu Ala Lys Asn Ser Gly Val Asn Asp Pro Phe Ser Gly Trp			
225	230	235	240
Leu Glu Arg Trp Phe Gly Lys Trp Lys Gly Ile Ile Ala Ser Ile Leu			
245	250	255	

Thr Ser Leu Ala Ala Val Ile Gly Val Val Ile Leu Phe Gly Cys Cys  
                   260                          265                          270  
 Val Thr Pro Cys Ile Arg Gly Leu Val Gln Arg Leu Ile Glu Thr Val  
                   275                          280                          285  
 Leu Thr Lys Thr Ser Leu Ser Ser Pro Pro Pro Tyr Ser Asp Lys Leu  
                   290                          295                          300  
 Phe Leu Leu Glu Asp Gln Val Glu Gln Gln Ser Gln Asp Leu Leu Lys  
 305                          310                          315                          320  
 Arg Phe Glu Glu Glu Gly Pro  
   325

<210> 4259

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4259

Met Phe Leu Pro Arg Glu Val Leu Leu Arg Leu Trp Val Gln Ile Ala  
           1                          5                          10                          15  
 Ile Leu Gly Cys Arg Tyr Ile Pro Gly Asp Ser Val Pro Ser Leu Met  
                   20                          25                          30  
 Val Ala Gln His Arg Pro Ala Arg Val Ala Ser Ala Ser Trp Ser Arg  
                   35                          40                          45  
 Ala Ala Arg Gly Gln Ala Trp Trp Leu Ala Pro Met Ile Pro Thr Leu  
                   50                          55                          60  
 Trp Glu Thr Glu Val Gly Arg Ser Leu Glu Pro Arg Ser Ser Arg Pro  
 65                          70                          75                          80  
 Thr Trp Ala Ala Trp Gln Lys Pro Ser Leu Gln Lys Ile Gln Asn Ser

	85	90	95
Pro Gly His Gly Gly Ala Phe Leu Trp Ser Gln Pro Lys Leu Ala Gly			
100	105	110	
His Gly Gly Val Cys Leu			
115			

&lt;210&gt; 4260

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4260

Met Gly Gly Ala Gly Gly Gln His Gly Thr Asp Leu His Pro Ala Leu			
1	5	10	15
Gln Thr Gly Thr Thr Ala Arg Pro Cys Cys Trp Met Val Ser Ser Val			
20	25	30	
Trp Ala Pro Ser Trp Asn Thr Thr Gln Ser Thr Ala Thr Gly Thr Ala			
35	40	45	
Leu Thr Glu Ala Arg Gly Pro Ala Cys Pro Gly Pro Leu Ser Leu Lys			
50	55	60	
Pro Arg Leu Val Pro Pro Thr Cys Cys Val Met Val Trp Leu Pro Arg			
65	70	75	80
Pro Ser Leu Gly Trp Val Trp Gly Trp Ser Gly Leu Ala His Ala Ser			
85	90	95	
His Leu Cys Leu His Leu Cys Cys His Pro Ala Pro Pro Ser Ser Ser			
100	105	110	
Ser Pro Ala Ser Ser Ser Leu Cys Ala Ser Val Ser Cys Arg Lys Lys			
115	120	125	



Trp Val Glu Pro Glu Arg Arg Leu Ser Glu Glu Gly Arg Gly Arg Ala  
 130 135 140  
 Trp Gly Gly Ser Pro Thr Pro His Pro Lys Pro Gln Gly Leu Pro Pro  
 145 150 155 160  
 Gly Ser Gly Arg Gly Arg Ser Trp Leu Cys Gly Val Val Ala Pro Leu  
 165 170 175  
 Leu Leu Pro Cys Phe Ser His Leu Ser Cys Pro Ser Leu Val Pro Thr  
 180 185 190  
 Ala Val His His Glu  
 195

<210> 4261

<211> 461

<212> PRT

<213> Homo sapiens

<400> 4261

Met Ser Arg Glu Gly Ala Gly Ala Ala Leu Val Ala Glu Val Ile Lys  
 1 5 10 15  
 Asp Arg Leu Cys Phe Ala Ile Leu Tyr Ser Arg Pro Lys Ser Ala Ser  
 20 25 30  
 Asn Val His Tyr Phe Ser Ile Asp Asn Glu Leu Glu Tyr Glu Asn Phe  
 35 40 45  
 Tyr Ala Asp Phe Gly Pro Leu Asn Leu Ala Met Val Tyr Arg Tyr Cys  
 50 55 60  
 Cys Lys Ile Asn Lys Lys Leu Lys Ser Ile Thr Met Leu Arg Lys Lys  
 65 70 75 80  
 Ile Val His Phe Thr Gly Ser Asp Gln Arg Lys Gln Ala Asn Ala Ala

	85		90		95										
Phe	Leu	Val	Gly	Cys	Tyr	Met	Val	Ile	Tyr	Leu	Gly	Arg	Thr	Pro	Glu
	100							105						110	
Glu	Ala	Tyr	Arg	Ile	Leu	Ile	Phe	Gly	Glu	Thr	Ser	Tyr	Ile	Pro	Phe
	115						120					125			
Arg	Asp	Ala	Ala	Tyr	Gly	Ser	Cys	Asn	Phe	Tyr	Ile	Thr	Leu	Leu	Asp
	130						135					140			
Cys	Phe	His	Ala	Val	Lys	Lys	Ala	Met	Gln	Tyr	Gly	Phe	Leu	Asn	Phe
145					150					155				160	
Asn	Ser	Phe	Asn	Leu	Asp	Glu	Tyr	Glu	His	Tyr	Glu	Lys	Ala	Glu	Asn
			165						170					175	
Gly	Asp	Leu	Asn	Trp	Ile	Ile	Pro	Asp	Arg	Phe	Ile	Ala	Phe	Cys	Gly
	180							185					190		
Pro	His	Ser	Arg	Ala	Arg	Leu	Glu	Ser	Gly	Tyr	His	Gln	His	Ser	Pro
	195							200					205		
Glu	Thr	Tyr	Ile	Gln	Tyr	Phe	Lys	Asn	His	Asn	Val	Thr	Thr	Ile	Ile
	210						215					220			
Arg	Leu	Asn	Lys	Arg	Met	Tyr	Asp	Ala	Lys	Arg	Phe	Thr	Asp	Ala	Gly
225					230					235				240	
Phe	Asp	His	His	Asp	Leu	Phe	Phe	Ala	Asp	Gly	Ser	Thr	Pro	Thr	Asp
					245					250				255	
Ala	Ile	Val	Lys	Glu	Phe	Leu	Asp	Ile	Cys	Glu	Asn	Ala	Glu	Gly	Ala
	260							265					270		
Ile	Ala	Val	His	Cys	Lys	Ala	Gly	Leu	Gly	Arg	Thr	Gly	Thr	Leu	Ile
	275							280				285			
Ala	Cys	Tyr	Ile	Met	Lys	His	Tyr	Arg	Met	Thr	Ala	Ala	Glu	Thr	Ile
	290							295				300			
Ala	Trp	Val	Arg	Ile	Cys	Arg	Pro	Gly	Ser	Val	Ile	Gly	Pro	Gln	Gln
305					310					315				320	

Gln Phe Leu Val Met Lys Gln Thr Asn Leu Trp Leu Glu Gly Asp Tyr

325

330

335

Phe Arg Gln Lys Leu Lys Gly Gln Glu Asn Gly Gln His Arg Ala Ala

340

345

350

Phe Ser Lys Leu Leu Ser Gly Val Asp Asp Ile Ser Ile Asn Gly Val

355

360

365

Glu Asn Gln Asp Gln Gln Glu Pro Glu Pro Tyr Ser Asp Asp Asp Glu

370

375

380

Ile Asn Gly Val Thr Gln Gly Asp Arg Leu Arg Ala Leu Lys Ser Arg

385

390

395

400

Arg Gln Ser Lys Thr Asn Ala Ile Pro Leu Thr Val Ile Leu Gln Ser

405

410

415

Ser Val Gln Ser Cys Lys Thr Ser Glu Pro Asn Ile Ser Gly Ser Ala

420

425

430

Gly Ile Thr Lys Arg Thr Thr Arg Ser Ala Ser Arg Lys Ser Ser Val

435

440

445

Lys Ser Leu Ser Ile Ser Arg Thr Lys Thr Val Leu Arg

450

455

460

<210> 4262

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4262

Met Pro Ala Val Ser Lys Gly Asp Gly Met Arg Gly Leu Ala Val Phe

1

5

10

15

Ile Ser Asp Ile Arg Asn Cys Lys Ser Lys Glu Ala Glu Ile Lys Arg

20	25	30	
Ile Asn Lys Glu Leu Ala Asn Ile Arg Ser Lys Phe Lys Gly Asp Lys			
35	40	45	
Ala Leu Asp Gly Tyr Ser Lys Lys Lys Tyr Val Cys Lys Leu Leu Phe			
50	55	60	
Ile Phe Leu Leu Gly His Asp Ile Asp Phe Gly His Met Glu Ala Val			
65	70	75	80
Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu Lys Gln Ile Gly Tyr Leu			
85	90	95	
Phe Ile Ser Val Leu Val Asn Ser Asn Ser Glu Leu Ile Arg Leu Ile			
100	105	110	
Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser Arg Asn Pro Thr Phe Met			
115	120	125	
Cys Leu Ala Leu His Cys Ile Ala Asn Val Gly Ser Arg Glu Met Gly			
130	135	140	
Glu Ala Phe Ala Ala Asp Ile Pro Arg Ile Leu Val Ala Gly Asp Ser			
145	150	155	160
Met Asp Ser Val Lys Gln Ser Ala Ala Leu Cys Leu Leu Arg Leu Tyr			
165	170	175	
Lys Ala Ser Pro Asp Leu Val Pro Met Gly Glu Trp Thr Ala Arg Val			
180	185	190	
Val His Leu Leu Asn Asp Gln His Met Gly Val Val Thr Ala Ala Val			
195	200	205	
Ser Leu Ile Thr Cys Leu Cys Lys Lys Asn Pro Asp Asp Phe Lys Thr			
210	215	220	
Cys Val Ser Leu Ala Val Ser Arg Leu Ser Arg Ile Val Ser Ser Ala			
225	230	235	240
Ser Thr Asp Leu Gln Asp Tyr Thr Tyr Tyr Phe Val Pro Ala Pro Trp			
245	250	255	

Leu Ser Val Lys Leu Leu Arg Leu Leu Gln Cys Tyr Leu Asn Tyr His  
                   260                                  265                                  270  
 Ser Pro Val Arg Gly Phe His Ile Trp Trp Glu Pro Ser Pro Thr Ala  
                   275                                  280                                  285  
 His Ser His Asn Ser Gln Cys Val  
                   290                                  295

<210> 4263

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4263

Met Val Ser Lys Ser Ala Val Asp Phe Gly Leu Glu Glu His Lys His  
   1                                  5                                  10                                  15  
 Asn Leu Tyr Pro Lys Leu Phe Tyr Pro Phe Ala Asn Phe Leu Leu Leu  
                   20                                  25                                  30  
 Asp Leu Ser Thr Lys Ser Val Val Leu Leu Leu Ser Leu Gln Leu Val  
                   35                                  40                                  45  
 Ser Val His Ala Val Gln Leu Leu Ile Thr Ser Gly Leu Trp Ala Gly  
                   50                                  55                                  60  
 Ser Lys Asn Leu Lys Leu Ile Met Leu Asp Ser Gly Ala Ser Val Gly  
   65                                  70                                  75                                  80  
 Leu His Ile Val Tyr Phe Pro Pro Ser Pro Ser Ala Thr Ala Val Leu  
                   85                                  90                                  95  
 Gly Arg Asp Ser Phe Phe Pro Leu Trp Leu Val Leu Glu Asn Cys Met  
                   100                                  105                                  110  
 Gly Tyr Arg

115

&lt;210&gt; 4264

&lt;211&gt; 307

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4264

Met Pro Ser Leu Leu Gly Ala Pro Pro Tyr Ser Gly Leu Gly Gly Val

1 5 10 15

Gly Asp Pro Tyr Ala Pro Leu Met Val Leu Met Cys Arg Val Cys Leu

20 25 30

Glu Asp Lys Pro Ile Lys Pro Leu Pro Cys Cys Lys Lys Ala Val Cys

35 40 45

Glu Glu Cys Leu Lys Val Tyr Leu Ser Ala Gln Val Gln Leu Gly Gln

50 55 60

Val Glu Ile Lys Cys Pro Ile Thr Glu Cys Phe Glu Phe Leu Glu Glu

65 70 75 80

Thr Thr Val Val Tyr Asn Leu Thr His Glu Asp Ser Ile Lys Tyr Lys

85 90 95

Tyr Phe Leu Glu Leu Gly Arg Ile Asp Ser Ser Thr Lys Pro Cys Pro

100 105 110

Gln Cys Lys His Phe Thr Thr Phe Lys Lys Lys Gly His Ile Pro Thr

115 120 125

Pro Ser Arg Ser Glu Ser Lys Tyr Lys Ile Gln Cys Pro Thr Cys Gln

130 135 140

Phe Val Trp Cys Phe Lys Cys His Ser Pro Trp His Glu Gly Val Asn

145 150 155 160

Cys Lys Glu Tyr Lys Lys Gly Asp Lys Leu Leu Arg His Trp Ala Ser  
 165 170 175

Glu Ile Glu His Gly Gln Arg Asn Ala Gln Lys Cys Pro Lys Cys Lys  
 180 185 190

Ile His Ile Gln Arg Thr Glu Gly Cys Asp His Met Thr Cys Ser Gln  
 195 200 205

Cys Asn Thr Asn Phe Cys Tyr Arg Cys Gly Glu Arg Tyr Arg Gln Leu  
 210 215 220

Arg Phe Phe Gly Asp His Thr Ser Asn Leu Ser Ile Phe Gly Cys Lys  
 225 230 235 240

Tyr Arg Tyr Leu Pro Glu Arg Pro His Leu Arg Arg Leu Val Arg Gly  
 245 250 255

Ser Val Cys Ala Gly Lys Leu Phe Ile Ala Pro Leu Ile Met Val Leu  
 260 265 270

Gly Leu Ala Leu Gly Ala Ile Ala Val Val Ile Gly Leu Phe Val Phe  
 275 280 285

Pro Ile Tyr Cys Leu Cys Lys Lys Gln Arg Lys Arg Ser Arg Thr Gly  
 290 295 300

Met His Trp  
 305

<210> 4265

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4265

Met Ser Arg Arg Gly Thr Trp Gly Gly Thr Pro Arg Asp Ala Gly Leu

1                      5                      10                      15  
 Cys Glu Pro Pro Ala Ser Ala Leu Thr Asn Gly Asp Leu Leu Pro His  
                     20                      25                      30  
 Phe Ala Leu Ile Asn Phe Lys Gln Leu Lys Asp Cys Pro Ser Tyr Gly  
                     35                      40                      45  
 Phe Trp Phe Val Phe Leu Val Val Ser Val Val Val Glu Thr Ala Glu  
                     50                      55                      60  
 Val Leu Gly Asp Ser Leu Gly Phe Gly Ala Gly His Gly Glu Gly Thr  
                     65                      70                      75                      80  
 Gly Lys Arg Trp Gly Leu Phe Leu Phe Val Thr Tyr Arg Thr Glu Thr  
                     85                      90                      95  
 Ser Ser Val Asn Cys Tyr Pro Trp Gly Leu Leu His Pro Gly Val Arg  
                     100                      105                      110  
 Pro Pro Ala Cys Leu Val Pro Cys Pro Ser Pro Arg Ser Arg Ala Gly  
                     115                      120                      125  
 His Leu Arg Gly  
                     130

<210> 4266

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4266

Met Val Ala Phe Val Gln Ala Arg Ala Gly Leu Met Asp Val Leu Val  
                     1                      5                      10                      15  
 Ser Pro Thr Val Gly Cys Gln Leu Ser Arg Pro Thr Gly Arg Asn Ile  
                     20                      25                      30



Arg Leu Ser Ser Ser Leu Thr Pro Asp Thr Arg Pro Gln Trp Ala Cys  
 35 40 45  
 Thr Gly Pro Gln Lys Val Ser Leu Gly Phe Ala Phe Leu Val Ser Ile  
 50 55 60  
 Thr Val Lys Glu Ala Leu Ile Glu Gln Leu Gln Cys Thr Trp Ser Ser  
 65 70 75 80  
 Ala Ser Ala Gly His Leu Glu Ile Gly Thr Val Met Val Pro Ala Leu  
 85 90 95  
 Lys Glu Leu Met Thr Trp Trp Gly Pro Val Val Phe Lys Glu Pro Arg  
 100 105 110  
 Ser His Trp Ala Pro Lys Val Glu Leu Lys Asp Trp Gly Gln Leu Ala  
 115 120 125  
 Leu Ser Leu Pro Pro Leu His Cys Leu Pro Leu Lys Asn Pro Thr Pro  
 130 135 140  
 Pro His Asp Gly Pro Leu Cys Ser Pro Cys Ile Ser Val Thr Val Asn  
 145 150 155 160

<210> 4267

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4267

Met Ser Ser Thr Gln Phe Asn Lys Gly Pro Ser Tyr Gly Leu Ser Ala  
 1 5 10 15  
 Glu Val Lys Asn Arg Leu Leu Ser Lys Tyr Asp Pro Gln Lys Glu Ala  
 20 25 30  
 Glu Leu Arg Thr Trp Ile Glu Gly Leu Thr Gly Leu Ser Ile Gly Pro

35	40	45
Asp Phe Gln Lys Gly Leu Lys Asp Gly Thr Ile Leu Cys Thr Leu Met		
50	55	60
Asn Lys Leu Gln Pro Gly Ser Val Pro Lys Ile Asn Arg Ser Met Gln		
65	70	75
Asn Trp His Gln Leu Glu Asn Leu Ser Asn Phe Ile Lys Ala Met Val		
85	90	95
Ser Tyr Gly Met Asn Pro Val Asp Leu Phe Glu Ala Asn Asp Leu Phe		
100	105	110
Glu Ser Gly Asn Met Thr Gln Val Gln Val Ser Leu Leu Ala Leu Ala		
115	120	125
Gly Lys Met Gly Thr Asn Lys Cys Ala Ser Gln Ser Gly Met Thr Ala		
130	135	140
Tyr Gly Thr Arg Arg His Leu Tyr Asp Pro Lys Asn His Ile Leu Pro		
145	150	155
Pro Met Asp His Ser Thr Ile Ser Leu Gln Met Gly Thr Asn Lys Cys		
165	170	175
Ala Ser Gln Val Gly Met Thr Ala Pro Gly Thr Arg Arg His Ile Tyr		
180	185	190
Asp Thr Lys Leu Gly Thr Asp Lys Cys Asp Asn Ser Ser Met Ser Leu		
195	200	205
Gln Met Gly Tyr Thr Gln Gly Ala Asn Gln Ser Gly Gln Val Phe Gly		
210	215	220
Leu Gly Arg Gln Ile Tyr Asp Pro Lys Tyr Cys Pro Gln Gly Thr Val		
225	230	235
Ala Asp Gly Ala Pro Ser Gly Thr Gly Asp Cys Pro Asp Pro Gly Glu		
245	250	255
Val Pro Glu Tyr Pro Pro Tyr Tyr Gln Glu Glu Ala Gly Tyr		
260	265	270

&lt;210&gt; 4268

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4268

Met Gly Asn Val Val Thr Cys Glu Leu Ser Val Glu Lys Val Cys Asp

1 5 10 15

Glu Asp Gly Glu Ala Lys Glu Leu Asp Tyr Gln Ala Thr Leu Leu Glu

20 25 30

Asp Gln Ala Pro Ala His Phe His Arg Asn Phe Pro Glu Gln Val Phe

35 40 45

Gln Asp Leu Gln Arg Lys Ser Pro Glu Ser Glu Ile Leu Ser Leu His

50 55 60

Leu Leu Val Glu Glu Leu Arg Leu Asn Pro Asp Gly Val Glu Thr Val

65 70 75 80

Asn Asp Thr Lys Pro Glu Leu Asn Val Ala Ser Ser Glu Gly Gly Glu

85 90 95

Met Glu Arg Arg Asp Ser Asp Ser Phe Leu Asn Ile Phe Pro Glu Lys

100 105 110

Gln Val Thr Lys Ala Gly Asn Thr Glu Pro Val Leu Glu Glu Trp Ile

115 120 125

Pro Val Leu Gln Arg Pro Ser Arg Thr Ala Ala Val Pro Thr Val Lys

130 135 140

Asp Ala Leu Asp Ala Ala Leu Pro Ser Pro Glu Glu Gly Thr Ser Ile

145 150 155 160

Ala Ala Val Pro Ala Pro Glu Gly Thr Ala Val Val Ala Ala Leu Val

165 170 175  
Pro Phe Pro His Glu Asp Ile Leu Val Ala Ser Ile Val Ser Leu Glu  
180 185 190  
Glu Glu Asp Val Thr Ala Ala Ala Val Ser Ala Pro Glu Arg Ala Thr  
195 200 205  
Val Pro Ala Val Thr Val Ser Val Pro Glu Gly Thr Ala Ala Val Ala  
210 215 220  
Ala Val Ser Ser Pro Glu Glu Thr Ala Pro Ala Val Ala Ala Ala Ile  
225 230 235 240  
Thr Gln Glu Gly Met Ser Ala Val Ala Gly Phe Ser Pro Glu Trp Ala  
245 250 255  
Ala Leu Ala Ile Thr Val Pro Ile Thr Glu Glu Asp Gly Thr Pro Glu  
260 265 270  
Gly Pro Val Thr Pro Ala Thr Thr Val His Ala Pro Glu Glu Pro Asp  
275 280 285  
Thr Ala Ala Val Arg Val Ser Thr Pro Glu Glu Pro Ala Ser Pro Ala  
290 295 300  
Ala Ala Val Pro Thr Pro Glu Glu Pro Thr Ser Pro Ala Ala Ala Val  
305 310 315 320  
Pro Thr Pro Glu Glu Pro Thr Ser Pro Ala Ala Ala Val Pro Pro Pro  
325 330 335  
Glu Glu Pro Thr Ser Pro Ala Ala Ala Val Pro Thr Pro Glu Glu Pro  
340 345 350  
Thr Ser Pro Ala Ala Ala Val Pro Thr Pro Glu Glu Pro Thr Ser Pro  
355 360 365  
Ala Ala Ala Val Pro Thr Pro Glu Glu Pro Thr Ser Pro Ala Ala Ala  
370 375 380  
Val Pro Thr Pro Glu Glu Pro Ala Ser Pro Ala Ala Ala Val Pro Thr  
385 390 395 400

Pro Glu Ile Gln Cys Gly Trp Trp Gly Trp  
 405 410

<210> 4269

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4269

Met Leu Val Leu Ala Trp Lys Leu Asp Ala Gln Asn Met Gly Tyr Phe  
 1 5 10 15  
 Thr Leu Gln Glu Trp Leu Lys Gly Met Thr Ser Leu Gln Cys Asp Thr  
 20 25 30  
 Thr Glu Lys Leu Arg Asn Thr Leu Asp Tyr Leu Arg Ser Phe Leu Asn  
 35 40 45  
 Asp Ser Thr Asn Phe Lys Leu Ile Tyr Arg Tyr Ala Phe Asp Phe Ala  
 50 55 60  
 Arg Gln Ser Lys Tyr Lys Val Ile Asn Lys Asp Gln Trp Cys Asn Val  
 65 70 75 80  
 Leu Glu Phe Ser Arg Thr Ile Asn Leu Asp Leu Ser Asn Tyr Asp Glu  
 85 90 95  
 Asp Gly Ala Trp Pro Val Leu Leu Asp Glu Phe Val Glu Trp Tyr Lys  
 100 105 110  
 Asp Lys Gln Met Ser  
 115

<210> 4270

&lt;211&gt; 630

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4270

Met Val Val Val Ile Ala Val Ser Val Tyr Cys Tyr Trp Arg Lys Ser

1 5 10 15

Gln Gln Ala Glu Arg Glu Tyr Glu Lys Ile Lys Ser Gln Leu Glu Gly

20 25 30

Leu Glu Glu Ser Val Arg Asp Arg Cys Lys Lys Glu Phe Thr Asp Leu

35 40 45

Met Ile Glu Met Glu Asp Gln Thr Asn Asp Val His Glu Ala Gly Ile

50 55 60

Pro Val Leu Asp Tyr Lys Thr Tyr Thr Asp Arg Val Phe Phe Leu Pro

65 70 75 80

Ser Lys Asp Gly Asp Lys Asp Val Met Ile Thr Gly Lys Leu Asp Ile

85 90 95

Pro Glu Pro Arg Arg Pro Val Val Glu Gln Ala Leu Tyr Gln Phe Ser

100 105 110

Asn Leu Leu Asn Ser Lys Ser Phe Leu Ile Asn Phe Ile His Thr Leu

115 120 125

Glu Asn Gln Arg Glu Phe Ser Ala Arg Ala Lys Val Tyr Phe Ala Ser

130 135 140

Leu Leu Thr Val Ala Leu His Gly Lys Leu Glu Tyr Tyr Thr Asp Ile

145 150 155 160

Met His Thr Leu Phe Leu Glu Leu Leu Glu Gln Tyr Val Val Ala Lys

165 170 175

Asn Pro Lys Leu Met Leu Arg Arg Ser Glu Thr Val Val Glu Arg Met

180 185 190

Leu Ser Asn Trp Met Ser Ile Cys Leu Tyr Gln Tyr Leu Lys Asp Ser  
 195 200 205

Ala Gly Glu Pro Leu Tyr Lys Leu Phe Lys Ala Ile Lys His Gln Val  
 210 215 220

Glu Lys Gly Pro Val Asp Ala Val Gln Lys Lys Ala Lys Tyr Thr Leu  
 225 230 235 240

Asn Asp Thr Gly Leu Leu Gly Asp Asp Val Glu Tyr Ala Pro Leu Thr  
 245 250 255

Val Ser Val Ile Val Gln Asp Glu Gly Val Asp Ala Ile Pro Val Lys  
 260 265 270

Val Leu Asn Cys Asp Thr Ile Ser Gln Val Lys Glu Lys Ile Ile Asp  
 275 280 285

Gln Val Tyr Arg Gly Gln Pro Cys Ser Cys Trp Pro Arg Pro Asp Ser  
 290 295 300

Val Val Leu Glu Trp Arg Pro Gly Ser Thr Ala Gln Ile Leu Ser Asp  
 305 310 315 320

Leu Asp Leu Thr Ser Gln Arg Glu Gly Arg Trp Lys Arg Val Asn Thr  
 325 330 335

Leu Ile His Tyr Asn Val Arg Asp Gly Ala Thr Leu Ile Leu Ser Lys  
 340 345 350

Val Gly Val Ser Gln Gln Pro Glu Asp Ser Gln Gln Asp Leu Pro Gly  
 355 360 365

Glu Arg His Ala Leu Leu Glu Glu Glu Asn Arg Val Trp His Leu Val  
 370 375 380

Arg Pro Thr Asp Glu Val Asp Glu Gly Lys Ser Lys Arg Gly Ser Val  
 385 390 395 400

Lys Glu Lys Glu Arg Thr Lys Ala Ile Thr Glu Ile Tyr Leu Thr Arg  
 405 410 415

Leu Leu Ser Val Lys Gly Thr Leu Gln Gln Phe Val Asp Asn Phe Phe

420 425 430  
Gln Ser Val Leu Ala Pro Gly His Ala Val Pro Pro Ala Val Lys Tyr  
435 440 445  
Phe Phe Asp Phe Leu Asp Glu Gln Ala Glu Lys His Asn Ile Gln Asp  
450 455 460  
Glu Asp Thr Ile His Ile Trp Lys Thr Asn Ser Leu Pro Leu Arg Phe  
465 470 475 480  
Trp Val Asn Ile Leu Lys Asn Pro His Phe Ile Phe Asp Val His Val  
485 490 495  
His Glu Val Val Asp Ala Ser Leu Ser Val Ile Ala Gln Thr Phe Met  
500 505 510  
Asp Ala Cys Thr Arg Thr Glu His Lys Leu Ser Arg Asp Ser Pro Ser  
515 520 525  
Asn Lys Leu Leu Tyr Ala Lys Glu Ile Ser Thr Tyr Lys Lys Met Val  
530 535 540  
Glu Asp Tyr Tyr Lys Gly Ile Arg Gln Met Val Gln Val Ser Asp Gln  
545 550 555 560  
Asp Met Asn Thr His Leu Ala Glu Ile Ser Arg Ala His Thr Asp Ser  
565 570 575  
Leu Asn Thr Leu Val Ala Leu His Gln Leu Tyr Gln Tyr Thr Gln Lys  
580 585 590  
Tyr Tyr Asp Glu Ile Ile Asn Ala Leu Glu Glu Asp Pro Ala Ala Gln  
595 600 605  
Lys Met Gln Leu Ala Phe Arg Leu Gln Gln Ile Ala Ala Ala Leu Glu  
610 615 620  
Asn Lys Val Thr Asp Leu  
625 630



&lt;210&gt; 4271

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4271

Met Gly His Gly Asp Gly Asp Met Gly Pro Cys Arg Leu His Lys Ala

1 5 10 15

Lys Trp Lys Ser Arg Phe Phe Thr Val Asn Val Gly Arg Pro Phe Phe

20 25 30

Phe Pro Gly Cys Leu Thr Tyr Tyr Cys Arg Ser Ala His Ile His Ser

35 40 45

Phe Pro Ser Val Leu Trp Gln Asp Asp Ile Ile Asp Asp Val Asp Ser

50 55 60

Phe Leu Ala Ala Ala Glu Thr Leu Lys Glu Arg Gly Ala Tyr Lys Ile

65 70 75 80

Phe Val Met Ala Thr His Gly Leu Leu Ser Ser Asp Ala Pro Arg Arg

85 90 95

Ile Glu Glu Ser Ala Ile Asp Glu Val Val Val Thr Asn Thr Ile Pro

100 105 110

His Glu Val Gln Lys Leu Gln Cys Pro Lys Ile Lys Thr Val Asp Ile

115 120 125

Ser Met Ile Leu Ser Glu Ala Ile Arg Arg Ile His Asn Gly Glu Ser

130 135 140

Met Ser Tyr Leu Phe Arg Asn Ile Gly Leu Asp Asp

145 150 155

&lt;210&gt; 4272

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4272

Met Arg Val Gly Trp Arg Gly Ala Val Cys Pro Ala Ser Arg Pro Arg

1 5 10 15

Gly Gly His Ser Pro Gln Ala Ile Leu Gly Ser Lys Asn Trp Pro Val

20 25 30

Arg Met Cys Leu Arg Leu Ser Pro Arg Gln Gln His His Gln Arg Gly

35 40 45

Thr Ser Leu Ser Trp Gly Ser His Val Glu Leu Tyr Leu Glu Gln Ile

50 55 60

Val Asn Arg Gly Ala Cys Gln Phe Thr Phe Ile Arg Thr Arg Phe Phe

65 70 75 80

Ser Leu Pro Asp Leu Pro Cys Lys Ser His Gly Gly Val Gly Ile Lys

85 90 95

Glu Lys Arg Ala Tyr Leu Asp Phe His Asp Leu Ser Val Asn Asp Ser

100 105 110

Tyr Pro Gly Trp Arg Phe Leu Ala Pro Phe Leu Ala Leu Asp Pro Met

115 120 125

Thr Pro Ser Met Ile Phe Phe Lys Val Gln

130 135

&lt;210&gt; 4273

&lt;211&gt; 522

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4273

Met Met Gly His Arg Pro Val Leu Val Leu Ser Gln Asn Thr Lys Arg  
 1 5 10 15  
 Glu Ser Gly Arg Lys Val Gln Ser Gly Asn Ile Asn Ala Ala Lys Thr  
 20 25 30  
 Ile Ala Asp Ile Ile Arg Thr Cys Leu Gly Pro Lys Ser Met Met Lys  
 35 40 45  
 Met Leu Leu Asp Pro Met Gly Gly Ile Val Met Thr Asn Asp Gly Asn  
 50 55 60  
 Ala Ile Leu Arg Glu Ile Gln Val Gln His Pro Ala Ala Lys Ser Met  
 65 70 75 80  
 Ile Glu Ile Ser Arg Thr Gln Asp Glu Glu Val Gly Asp Gly Thr Thr  
 85 90 95  
 Thr Val Val Ile Ser Ala Tyr Arg Lys Ala Leu Asp Asp Met Ile Ser  
 100 105 110  
 Thr Leu Lys Lys Ile Ser Ile Pro Val Asp Ile Ser Asp Ser Asp Met  
 115 120 125  
 Met Leu Asn Ile Ile Asn Ser Ser Ile Thr Thr Lys Ala Ile Ser Arg  
 130 135 140  
 Trp Ser Ser Leu Ala Cys Asn Ile Ala Leu Asp Ala Val Lys Met Val  
 145 150 155 160  
 Gln Phe Glu Glu Asn Gly Arg Lys Glu Ile Asp Ile Lys Lys Tyr Ala  
 165 170 175  
 Arg Val Glu Lys Ile Pro Gly Gly Ile Ile Glu Asp Ser Cys Val Leu  
 180 185 190  
 Arg Gly Val Met Ile Asn Lys Asp Val Thr His Pro Arg Met Arg Arg  
 195 200 205  
 His Ile Lys Asn Pro Arg Ile Val Leu Leu Asp Ser Ser Leu Glu Tyr

210 215 220  
Lys Lys Gly Glu Ser Gln Thr Asp Ile Glu Ile Thr Arg Glu Glu Asp  
225 230 235 240  
Phe Thr Arg Ile Leu Gln Met Glu Glu Glu Tyr Ile Gln Gln Leu Cys  
245 250 255  
Glu Asp Ile Ile Gln Leu Lys Pro Asp Val Val Ile Thr Glu Lys Gly  
260 265 270  
Ile Ser Asp Leu Ala Gln His Tyr Leu Met Arg Ala Asn Ile Thr Ala  
275 280 285  
Ile Arg Arg Val Arg Lys Thr Asp Asn Asn Arg Ile Ala Arg Ala Cys  
290 295 300  
Gly Ala Arg Ile Val Ser Arg Pro Glu Glu Leu Arg Glu Asp Asp Val  
305 310 315 320  
Gly Thr Gly Ala Gly Leu Leu Glu Ile Lys Lys Ile Gly Asp Glu Tyr  
325 330 335  
Phe Thr Phe Ile Thr Asp Cys Lys Asp Pro Lys Ala Cys Thr Ile Leu  
340 345 350  
Leu Arg Gly Ala Ser Lys Glu Ile Leu Ser Glu Val Glu Arg Asn Leu  
355 360 365  
Gln Asp Ala Met Gln Val Cys Arg Asn Val Leu Leu Asp Pro Gln Leu  
370 375 380  
Val Pro Gly Gly Gly Ala Ser Glu Met Ala Val Ala His Ala Leu Thr  
385 390 395 400  
Glu Lys Ser Lys Ala Met Thr Gly Val Glu Gln Trp Pro Tyr Arg Ala  
405 410 415  
Val Ala Gln Ala Leu Glu Val Ile Pro Arg Thr Leu Ile Gln Asn Cys  
420 425 430  
Gly Ala Ser Thr Ile Arg Leu Leu Thr Ser Leu Arg Ala Lys His Thr  
435 440 445

Gln Glu Asn Cys Glu Thr Trp Gly Val Asn Gly Glu Thr Gly Thr Leu  
 450 455 460  
 Val Asp Met Lys Glu Leu Gly Ile Trp Glu Pro Leu Ala Val Lys Leu  
 465 470 475 480  
 Gln Thr Tyr Lys Thr Ala Val Glu Thr Ala Val Leu Leu Leu Arg Ile  
 485 490 495  
 Asp Asp Ile Val Ser Gly His Lys Lys Lys Gly Asp Asp Gln Ser Arg  
 500 505 510  
 Gln Gly Gly Ala Pro Asp Ala Gly Gln Glu  
 515 520

<210> 4274

<211> 191

<212> PRT

<213> Homo sapiens

<400> 4274

Met Ser Ser Thr Leu Gly Lys Leu Ser Asn Gln Val Glu Glu Thr Leu  
 1 5 10 15  
 Pro Leu Leu Lys Lys Pro Leu Lys Arg Ala Ile Thr Thr Leu Met Ala  
 20 25 30  
 Gly Ile Leu Arg Leu Val Val Gln Trp Pro Pro Gly Arg Leu Gln Thr  
 35 40 45  
 Val Thr Lys Gly Val Glu Ser Leu Ile Cys Thr Asp Trp Ile Arg His  
 50 55 60  
 Lys Phe Thr Arg Ser Arg Ile Pro Glu Lys Ala Phe Gln Ala Ser Pro  
 65 70 75 80  
 Glu Asp His Glu Lys Tyr Gly Gly Asp Pro Gln Asn Pro His Lys Leu

	85		90		95
His Ile Val Thr Arg Ile Lys Ser Thr Arg Arg Arg Pro Tyr Trp Glu					
	100		105		110
Lys Asp Ile Ile Lys Met Leu Gly Leu Glu Lys Ala His Thr Pro Gln					
	115		120		125
Val His Lys Asn Ile Pro Ser Val Asn Ala Lys Leu Lys Val Val Lys					
	130		135		140
His Leu Ile Arg Ile Lys Pro Leu Lys Leu Pro Gln Gly Leu Pro Thr					
	145		150		155
					160
Glu Glu Asn Met Ser Asn Thr Cys Leu Lys Ser Thr Gly Glu Leu Val					
	165		170		175
Val Gln Trp His Leu Lys Pro Val Glu Gln Lys Ala His Glu Ser					
	180		185		190

&lt;210&gt; 4275

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4275

Met Leu Asp Ile Leu Val Tyr Glu Glu Gln Gln Gln Ala Ala Ala Gly			
1	5	10	15
Glu Ala Gly Pro Cys Leu Glu Tyr Leu Leu Gln His Lys Ile Leu Glu			
20	25	30	
Thr Leu Cys Thr Leu Gly Lys Ala Glu Val Gly Gly Pro Leu Arg Ala			
35	40	45	
Gly Pro Gly Arg Gly Gly Arg Pro Leu Arg Ala Trp Pro Gly Arg Gly			
50	55	60	

Gly Arg Pro Leu Cys Ala Gly Pro Gly Arg Gly Gly Arg Pro Ser Glu  
 65                      70                      75                      80  
 Cys Trp Ala Arg Leu Arg Trp Ala Val Gly Ser Gly Gln Pro Gly Ala  
                             85                      90                      95  
 Pro Trp Ile Pro Gly Leu Ser Ala Tyr Ala Leu Pro Ser Pro Asp Thr  
                             100                      105                      110  
 Glu Ser Gly Ser Ser Gly Glu Arg Ser Lys Gln Asp Gly His Cys Gly  
                             115                      120                      125  
 Cys Leu Thr  
                             130

<210> 4276

<211> 357

<212> PRT

<213> Homo sapiens

<400> 4276

Met Phe Cys Tyr Lys Trp Arg Arg Arg Arg Thr Thr Thr Met Gly Ile  
 1                      5                      10                      15  
 Ser Glu Glu Phe Asn Gly Lys Pro Asp Ser Leu Phe Phe Asn Asp Gly  
                             20                      25                      30  
 Gln Arg Arg Ile Asp Phe Val Leu Val Tyr Glu Asp Glu Ser Arg Lys  
                             35                      40                      45  
 Glu Thr Asn Lys Lys Gly Thr Asn Glu Lys Gln Arg Arg Lys Arg Gln  
                             50                      55                      60  
 Ala Tyr Glu Ser Asn Leu Ile Cys His Gly Leu Gln Leu Glu Ala Thr  
 65                      70                      75                      80  
 Arg Ser Val Leu Asp Asp Lys Leu Val Phe Val Lys Val His Ala Pro

	85	90	95
Trp Glu Val Leu Cys Thr Tyr Ala Glu Ile Met His Ile Lys Leu Pro			
100	105	110	
Leu Lys Pro Asn Asp Leu Lys Asn Arg Ser Ser Ala Phe Gly Thr Leu			
115	120	125	
Asn Trp Phe Thr Lys Val Leu Ser Val Asp Glu Ser Ile Ile Lys Pro			
130	135	140	
Glu Gln Glu Phe Phe Thr Ala Pro Phe Glu Lys Asn Arg Met Asn Asp			
145	150	155	160
Phe Tyr Ile Val Asp Arg Asp Ala Phe Phe Asn Pro Ala Thr Arg Ser			
165	170	175	
Arg Ile Val Tyr Phe Ile Leu Ser Arg Val Lys Tyr Gln Val Ile Asn			
180	185	190	
Asn Val Ser Lys Phe Gly Ile Asn Arg Leu Val Asn Ser Gly Ile Tyr			
195	200	205	
Lys Ala Ala Phe Pro Leu His Asp Cys Lys Phe Arg Arg Gln Ser Glu			
210	215	220	
Asp Pro Ser Cys Pro Asn Glu Arg Cys Leu Leu Tyr Arg Glu Trp Ala			
225	230	235	240
His Pro Arg Ser Ile Tyr Lys Lys Gln Pro Leu Asp Leu Ile Arg Lys			
245	250	255	
Tyr Tyr Gly Glu Lys Ile Gly Ile Tyr Phe Ala Trp Leu Gly Tyr Tyr			
260	265	270	
Thr Gln Met Leu Leu Leu Ala Ala Val Val Gly Val Ala Cys Phe Leu			
275	280	285	
Tyr Gly Tyr Leu Asn Gln Asp Asn Cys Thr Trp Ser Lys Glu Val Cys			
290	295	300	
His Pro Asp Ile Gly Gly Lys Ile Ile Met Cys Pro Gln Cys Asp Arg			
305	310	315	320



Leu Cys Pro Phe Trp Lys Leu Asn Ile Thr Cys Glu Ser Ser Lys Lys

325

330

335

Leu Cys Ile Phe Asp Ser Phe Gly Thr Leu Val Phe Ala Val Phe Met

340、

345

350

Gly Val Trp Asp Pro

355

<210> 4277

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4277

Met Pro Gln Leu Gly Phe Val Pro Ile Leu Phe Cys Leu Cys Arg Lys

1

5

10

15

Ser Val Ser Asn His Ser Gly Pro Val Gln Cys Phe Trp Met Lys Gln

20

25

30

Asn Cys Glu Thr His Thr Ala Leu Ser Thr Cys Leu Pro Trp Gly Glu

35

40

45

Ser His Ile Asn Ile Ile Val Ser Tyr Leu His Ile Tyr Pro Cys Ser

50

55

60

Cys Gly Trp Gln Gln Pro Arg Asp Lys Arg Gln Ile Lys Ser Ala Arg

65

70

75

80

Val Ser Leu Ala Arg Lys Gly Arg Val Gln Val Thr Leu Lys Gly Gln

85

90

95

Glu Thr His Ser Arg Trp Gly Ile Pro Gly Val Pro Gly Ile Gly Pro

100

105

110

Glu

&lt;210&gt; 4278

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4278

Met Pro Ala Phe Ser Val Pro Cys Ser Arg Thr Val Asn Ser Phe Leu  
1 5 10 15  
Ser Leu Phe Ser Tyr Ser Cys Leu Ile Asn Asp Ser Ala Ile Asn Cys  
20 25 30  
Asp Glu Cys Phe Arg Phe Met Trp Ser Ile Lys Arg Asp Tyr Thr Ser  
35 40 45  
Trp Asn Phe Val Ala Ile Ser Gln Ala Ser Glu Ile Val Tyr Leu Ser  
50 55 60  
Ile Ser Pro Glu Glu Ser Lys Ile Ile Asp Gly Val Trp Ile Gln Lys  
65 70 75 80  
Arg Asp Tyr Phe Ser Leu Ser Leu Arg Leu Leu Asp Ser Ile Leu Gln  
85 90 95  
Ser Val Met Asp His Ile  
100

&lt;210&gt; 4279

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4279

Met Val Ser Asn Thr Cys Cys Arg Leu His Val Glu Leu Ser Leu Ile  
 1 5 10 15  
 Ser Pro Arg Val Gly Met Ser Arg Gly Gly Leu Met Phe Leu Pro Leu  
 20 25 30  
 Thr Leu Leu Ser Ser Pro Gly Gln Asp Phe Glu Trp Arg Val Trp Gly  
 35 40 45  
 Ile Leu Leu Ala Val Ala Leu Gly Thr Leu Ala Thr Pro Phe Ala Leu  
 50 55 60  
 Pro Cys Val Val Gly Gln Tyr Leu Glu Trp Ser Gly Gln Thr Arg Glu  
 65 70 75 80  
 Thr Tyr Arg Arg Ser Arg Gly His Ser Asp Ala His Arg Pro Leu Ser  
 85 90 95  
 Val Gly Arg Leu Gly Cys Asp Leu Phe Arg Arg Ser Gly Val His Thr  
 100 105 110  
 Val

&lt;210&gt; 4280

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4280

Met Lys Thr Gly Arg Ser His Thr Leu Arg Ser Glu Ala Gln Gly His  
 1 5 10 15  
 His Lys Pro Gly Arg His Glu Ala Arg Pro Glu Arg His Arg Gln Ala

20 25 30  
 Glu Glu Trp Thr Glu Glu Gln Gln Arg Ser Leu Glu Asp Glu Ser Gln  
 35 40 45  
 Leu Cys Lys Glu Leu Pro Arg Val Phe Leu Pro Gln Lys Phe His Leu  
 50 55 60  
 Ala Thr Glu Met Ala Leu Ala Leu Gly Gln Glu Arg Gly Gly Asp Glu  
 65 70 75 80  
 Leu Leu Met Ala Met Thr Phe Ser Gln His Val Leu Pro Val Leu Pro  
 85 90 95  
 Arg Val Glu Met Pro Leu  
 100

&lt;210&gt; 4281

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4281

Met His Ala Asp Pro Ala Ala Pro Arg Gly Cys His Arg Phe Pro Pro  
 1 5 10 15  
 Ser Gln Thr Gln His Thr Leu Pro Ala Trp Arg Cys Ala Ala Pro Ser  
 20 25 30  
 Leu Trp Ser Arg Val Trp Gln Ser Ala His Gln Phe Leu Leu Leu Pro  
 35 40 45  
 Trp Asp Leu Pro Ala Phe Ser Thr Ala Ile His Ser Ala Asn Trp Asp  
 50 55 60  
 Cys Trp Ser Pro Tyr Leu Ala Ala Ser Asp Lys Val Arg Ala Thr Pro  
 65 70 75 80

Gly Arg Glu Asp Thr Cys Gly Glu Asn Ser Cys Val Ile Tyr Phe Ser  
85 90 95  
Phe Gly Ile Gly Cys Leu Gln Arg Phe Met Gly Gly Gly Gly Leu Met  
100 105 110  
Leu Arg Ala Gln Lys Phe Gln Gly His Leu Gly Arg Pro Asp Ile Gln  
115 120 125  
Arg Pro Ser Arg Cys Ala Cys Ser Met Tyr Gln Gly Arg Arg Phe Ser  
130 135 140  
Gln Gln Gly Trp Cys His Trp His Asp Arg Pro Ala Leu Ala Glu Arg  
145 150 155 160  
Ser Pro Val Phe Gly Val Gln Pro Pro  
165

&lt;210&gt; 4282

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4282

Met Phe Thr Ser Gln Gln Trp Lys His Leu Ser Asn Asp Phe Leu Lys  
1 5 10 15  
Thr Gln Gln Glu Lys Arg His Ser Trp Phe Lys Ala Ser Gly Thr Ile  
20 25 30  
Lys Lys Phe Arg Ala Gly Leu Ser Ile Phe Ser Pro Ile Pro Lys Ser  
35 40 45  
Pro Ser Phe Pro Ile Ile Gln Asp Ser Met Leu Lys Gly Lys Leu Gly  
50 55 60  
Val Pro Glu Leu Arg Val Gly Arg Leu Met Asn Arg Ser Ile Ser Cys

出証特 2 0 0 4 - 3 0 5 9 6 6 0

&lt;210&gt; 4283

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4283

Met Pro Arg Gly Val Gln Ile Lys Lys Arg Ala Cys Ala Gln Met Trp

1 5 10 15

Ala Gln Val Ser Gln Arg Gly Lys Ser Ser Phe Trp Pro Ser Leu Gln

20 25 30

His Ala Leu Gly Pro Ser Asn Ile Ser Lys Ile Arg Lys Glu Leu Phe

35 40 45

Ser Ser His Gln Tyr Leu Leu Cys Phe Gln Thr Ile Phe Phe Ala Asn

50 55 60

Leu Pro Cys Gln Cys Ser Val Pro Pro Cys Pro His Thr Ser Ser Ala

65 70 75 80

Gly Arg Ala Ala Leu Glu Thr Val Leu Ser Ile Pro Cys Gly Glu Arg

85 90 95

Gly Thr Ala Ala Pro Leu Val Ser Ala Glu Ile Gln Ser Ser Ile Ser

100 105 110

Ser Leu Lys Gly Asp Phe Leu His Thr

115 120

&lt;210&gt; 4284

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4284

Met Ile Asn Glu Ser Gly Thr Glu Leu Gln Asp Lys Tyr Cys Tyr Arg  
 1 5 10 15  
 Ala Ser Pro Ala Ala Gln Ile Thr Gly Lys Ile Ser Pro Arg Leu Phe  
 20 25 30  
 Ile Ser Pro Leu Pro Pro Trp Pro Ser Gly Ser Ser Gln Gln Ser Arg  
 35 40 45  
 Ile His Pro Ser Pro Phe Pro Arg Pro His Pro Ser Leu Ser Ser Gln  
 50 55 60  
 Arg Thr Ala Gly Glu Arg Gly Met Gln Ile Gly Pro Gly Ala Gly Gly  
 65 70 75 80  
 Pro Leu Cys Leu Ala Ala Leu Cys Leu Pro Ala Gln Leu Trp Arg Gln  
 85 90 95  
 Pro Arg Gly Ala Gly Met Val Arg Val Met Leu Phe Ser Val Val Asp  
 100 105 110  
 Glu Cys Leu Ala Leu Gln Thr  
 115

&lt;210&gt; 4285

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4285

Met Asn Ser Cys Arg Glu Gln Cys Pro Phe His Gly Trp Ala His Ser  
 1 5 10 15  
 Trp His Gln Leu Ser Trp Ser Asn Gly Asn Pro Ile Tyr Cys Thr Arg  
 20 25 30



Asp Thr Phe Cys Gly Asp Ser Glu Met Gln Arg Asp Gln Ile Thr Ser  
 35 40 45  
 Arg Lys Gly Arg Ala Trp Cys Glu Gly Thr Arg Leu Thr Asp Ile Pro  
 50 55 60  
 Asp Asp Lys Pro Val Gly Pro Ser Gly Ser Leu Pro Pro Ala Ser His  
 65 70 75 80  
 Ser Gly Glu Gly Pro Val Ile Glu Ala Val Gly Ile Pro Glu Glu Arg  
 85 90 95  
 Thr Gln Gln Lys Gln Val Glu Gly Val Gly Gln Arg Ala Asp Leu Pro  
 100 105 110  
 Pro Ala Thr Leu Ser Tyr Cys Ser Ser Arg Gly Asn Asn Leu Gly Gly  
 115 120 125  
 Cys His Glu Gly Phe Ser Gly Ala Pro Phe Pro Trp Gly Leu Met Glu  
 130 135 140  
 Gly Gly Asn Cys Val Asn Val Val Trp Trp Lys Lys Gln Ala Trp Ser  
 145 150 155 160  
 Ala His Arg Leu Gly Val Pro Arg Ile  
 165

&lt;210&gt; 4286

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4286

Met Cys Ala Ser Thr Ser Arg Arg Ser Ser Thr Trp Pro Gln Pro Ala  
 1 5 10 15  
 Trp Arg Gln Arg Ala Gly Ala Lys Ser Gln Arg Ser Arg Cys Ser Gly

20 25 30  
 Ser Cys Cys Ser Leu Thr Ala Arg Pro Gln Pro Arg Val Ala Tyr Ala  
 35 40 45  
 His Leu Met Ser Ser Leu Arg Ile Arg Arg Leu Ser Gly Arg Thr Trp  
 50 55 60  
 Leu Ser Ser Leu Ala Asp Arg Arg Pro Arg Gln Arg Ala Gly Gln Leu  
 65 70 75 80  
 Pro Ser Cys Thr Thr Gln Gly Ser Thr Gln Pro Ala Gln Lys Thr Trp  
 85 90 95  
 Pro His Gly Val Val Ser Gly Ser Ser Arg Thr Leu Trp His Ser Ala  
 100 105 110  
 His Phe Arg Ser Gly Ser Thr Ser Pro Ser Lys Arg Ser Ser Ser Lys  
 115 120 125  
 Pro Met Val Ala Ala Arg Pro Arg Gly Arg Arg Arg Ala Ala Gly Arg  
 130 135 140  
 Pro Leu Pro Pro His Glu Ala Ala Gln Thr Gly Arg Leu Arg Arg Pro  
 145 150 155 160  
 Arg Ala Arg Trp Leu Ser Pro Asp  
 165

&lt;210&gt; 4287

&lt;211&gt; 495

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4287

Met His His Trp Cys Ile Pro Phe Ser Val Asp Gly Gln Pro Ala Pro  
 1 5 10 15

Ser Leu Arg Trp Leu Phe Asn Gly Ser Val Leu Asn Glu Thr Ser Phe  
 20 25 30  
 Ile Phe Thr Glu Phe Leu Glu Pro Ala Ala Asn Glu Thr Val Arg His  
 35 40 45  
 Gly Cys Leu Arg Leu Asn Gln Pro Thr His Val Asn Asn Gly Asn Tyr  
 50 55 60  
 Thr Leu Leu Ala Ala Asn Pro Phe Gly Gln Ala Ser Ala Ser Ile Met  
 65 70 75 80  
 Ala Ala Phe Met Asp Asn Pro Phe Glu Phe Asn Pro Glu Asp Pro Ile  
 85 90 95  
 Pro Asp Thr Asn Ser Thr Ser Gly Asp Pro Val Glu Lys Lys Asp Glu  
 100 105 110  
 Thr Pro Phe Gly Val Ser Val Ala Val Gly Leu Ala Val Phe Ala Cys  
 115 120 125  
 Leu Phe Leu Ser Thr Leu Leu Leu Val Leu Asn Lys Cys Gly Arg Arg  
 130 135 140  
 Asn Lys Phe Gly Ile Asn Arg Pro Ala Val Leu Ala Pro Glu Asp Gly  
 145 150 155 160  
 Leu Ala Met Ser Leu His Phe Met Thr Leu Gly Gly Ser Ser Leu Ser  
 165 170 175  
 Pro Thr Glu Gly Lys Gly Ser Gly Leu Gln Gly His Ile Ile Glu Asn  
 180 185 190  
 Pro Gln Tyr Phe Ser Asp Ala Cys Val His His Ile Lys Arg Arg Asp  
 195 200 205  
 Ile Val Leu Lys Trp Gly Leu Gly Glu Gly Ala Phe Gly Lys Val Phe  
 210 215 220  
 Leu Ala Glu Cys His Asn Leu Leu Pro Glu Gln Asp Lys Met Leu Val  
 225 230 235 240  
 Ala Val Lys Ala Leu Lys Glu Ala Ser Glu Ser Ala Arg Gln Asp Phe

245 250 255  
Gln Arg Glu Ala Glu Leu Leu Thr Met Leu Gln His Gln His Ile Val  
260 265 270  
Arg Phe Phe Gly Val Cys Thr Glu Gly Arg Pro Leu Leu Met Val Phe  
275 280 285  
Glu Tyr Met Arg His Gly Asp Leu Asn Arg Phe Leu Arg Ser His Gly  
290 295 300  
Pro Asp Ala Lys Leu Leu Ala Gly Gly Glu Asp Val Ala Pro Gly Pro  
305 310 315 320  
Leu Gly Leu Gly Gln Leu Leu Ala Val Ala Ser Gln Val Ala Ala Gly  
325 330 335  
Met Val Tyr Leu Ala Gly Leu His Phe Val His Arg Asp Leu Ala Thr  
340 345 350  
Arg Asn Cys Leu Val Gly Gln Gly Leu Val Val Lys Ile Gly Asp Phe  
355 360 365  
Gly Met Ser Arg Asp Ile Tyr Ser Thr Asp Tyr Tyr Arg Val Gly Gly  
370 375 380  
Arg Thr Met Leu Pro Ile Arg Trp Met Pro Pro Glu Ser Ile Leu Tyr  
385 390 395 400  
Arg Lys Phe Thr Thr Glu Ser Asp Val Trp Ser Phe Gly Val Val Leu  
405 410 415  
Trp Glu Ile Phe Thr Tyr Gly Lys Gln Pro Trp Tyr Gln Leu Ser Asn  
420 425 430  
Thr Glu Ala Ile Asp Cys Ile Thr Gln Gly Arg Glu Leu Glu Arg Pro  
435 440 445  
Arg Ala Cys Pro Pro Glu Val Tyr Ala Ile Met Arg Gly Cys Trp Gln  
450 455 460  
Arg Glu Pro Gln Gln Arg His Ser Ile Lys Asp Val His Ala Arg Leu  
465 470 475 480

Gln Ala Leu Ala Gln Ala Pro Pro Val Tyr Leu Asp Val Leu Gly  
 485 490 495

<210> 4288

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4288

Met Pro Ile Leu Gln Ala Leu Cys Leu Leu Pro Lys Val Ser Thr Pro  
 1 5 10 15  
 Ser Ile Thr Val Pro Ser Pro Gln Arg Ser Ala Ala Leu Ser Ile Thr  
 20 25 30  
 Val Pro Ser Pro Gln Arg Ser Ala Ala Pro Ser Ile Thr Val Pro Ser  
 35 40 45  
 Pro Gln Arg Ser Ala Pro Arg Ala Ser Leu Cys Pro Pro His Lys Gly  
 50 55 60  
 Gln His Pro Glu His His Cys Ala Leu Pro Pro Lys Gly Gln His Pro  
 65 70 75 80  
 Glu His His Cys Ala Leu Pro Thr Lys Val Ser Thr Pro Ser Ile Thr  
 85 90 95  
 Val Pro Ser Pro Gln Arg Ser Pro Gln Met Ser Leu Ser Ser Ala Ala  
 100 105 110  
 Arg Gly Ser Asn Thr Asp Val Ala Gly Leu Ser Val Gly Glu Trp Pro  
 115 120 125  
 Gly Trp Gln Leu Trp Gly Glu Gly Gln Asp Gly Ala Gln Gln Arg Pro  
 130 135 140  
 His Leu Pro Ser Gly Gly Ser Gly Ala Gly Val Ala Pro Gln Arg Leu

145                      150                      155                      160  
 Pro Lys Ser Arg Ala Cys Ile Leu Cys Ser Arg His Gly Ala Gln Gly  
                          165                      170                      175  
 Pro Trp Val Thr Gly Arg Ser Val Ser His Ser His Cys Pro Ile Gln  
                          180                      185                      190  
 Gly Leu Leu Asp Leu Gln Arg Pro Asp Leu Gly Thr Asp Trp Gly Arg  
                          195                      200                      205  
 Thr Arg Pro Leu Cys Thr Pro Gln Asp Leu Cys Gly Gly Arg Pro Leu  
                          210                      215                      220  
 Pro Ser Thr Trp Gly Val Thr Met His Leu Ile His Cys Leu Ser Val  
 225                      230                      235                      240  
 Ser Leu Ser Leu Cys Leu Ser Leu Ser His Cys Val  
                          245                      250

<210> 4289

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4289

Met Met Phe Leu Met Asn Thr Ser Pro Cys Pro Phe Phe Phe Phe Phe  
   1                      5                      10                      15  
 Arg Trp Ser Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile  
                          20                      25                      30  
 Ser Gly His Cys Asn Leu Arg Pro Pro Ala Ser Ser Asp Ser Pro Val  
                          35                      40                      45  
 Ser Ala Ser Arg Val Ala Arg Ile Thr Gly Ala Arg His Gln Ala Trp  
                          50                      55                      60

<210> 4290

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4290

出証特 2 0 0 4 - 3 0 5 9 6 6 0

100	105	110
Ile Thr Leu Ile His Lys Trp Asp Leu Gly		
115	120	

&lt;210&gt; 4291

&lt;211&gt; 372

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4291

Met Glu Pro Gly Arg Arg Gly Ala Ala Ala Leu Leu Ala Leu Leu Cys			
1	5	10	15
Val Ala Cys Ala Leu Arg Ala Gly Arg Ala Gln Tyr Glu Arg Tyr Ser			
20	25	30	
Phe Arg Ser Phe Pro Arg Asp Glu Leu Met Pro Leu Glu Ser Ala Tyr			
35	40	45	
Arg His Ala Leu Asp Lys Tyr Ser Gly Glu His Trp Ala Glu Ser Val			
50	55	60	
Gly Tyr Leu Glu Ile Ser Leu Arg Leu His Arg Leu Leu Arg Leu Phe			
65	70	75	80
Gly Gly Leu Leu Arg Arg Ala His Cys Leu Lys Arg Cys Lys Gln Gly			
85	90	95	
Leu Pro Ala Phe Arg Gln Ser Gln Pro Ser Arg Glu Val Leu Ala Asp			
100	105	110	
Phe Gln Arg Arg Glu Pro Tyr Lys Phe Leu Gln Phe Ala Tyr Phe Lys			
115	120	125	
Ala Asn Asn Leu Pro Lys Ala Ile Ala Ala Ala His Thr Phe Leu Leu			
130	135	140	



Lys His Pro Asp Asp Glu Met Met Lys Arg Asn Met Ala Tyr Tyr Lys  
 145 150 155 160  
 Ser Leu Pro Gly Ala Glu Asp Tyr Ile Lys Asp Leu Glu Thr Lys Ser  
 165 170 175  
 Tyr Glu Ser Leu Phe Ile Arg Ala Val Arg Ala Tyr Asn Gly Glu Asn  
 180 185 190  
 Trp Arg Thr Ser Ile Thr Asp Met Glu Leu Ala Leu Pro Asp Phe Phe  
 195 200 205  
 Lys Ala Phe Tyr Glu Cys Leu Ala Ala Cys Glu Gly Ser Arg Glu Ile  
 210 215 220  
 Lys Asp Phe Lys Asp Phe Tyr Leu Ser Ile Ala Asp His Tyr Val Glu  
 225 230 235 240  
 Val Leu Glu Cys Lys Ile Gln Cys Glu Glu Asn Leu Thr Pro Val Ile  
 245 250 255  
 Gly Gly Tyr Pro Val Glu Lys Phe Val Ala Thr Met Tyr His Tyr Leu  
 260 265 270  
 Gln Phe Ala Tyr Tyr Lys Leu Asn Asp Leu Lys Asn Ala Ala Pro Cys  
 275 280 285  
 Ala Val Ser Tyr Leu Leu Phe Asp Gln Asn Asp Lys Val Met Gln Gln  
 290 295 300  
 Asn Leu Val Tyr Tyr Gln Tyr His Arg Asp Thr Trp Gly Leu Ser Asp  
 305 310 315 320  
 Glu His Phe Gln Pro Arg Pro Glu Ala Val Gln Phe Phe Asn Val Thr  
 325 330 335  
 Thr Leu Gln Lys Glu Leu Tyr Asp Phe Ala Lys Glu Asn Ile Met Asp  
 340 345 350  
 Asp Asp Glu Gly Glu Val Val Glu Tyr Val Asp Asp Leu Leu Glu Leu  
 355 360 365  
 Glu Glu Thr Ser

370

&lt;210&gt; 4292

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4292

Met Arg Val Phe Ile Gln Ile Cys Phe Ser Tyr Phe Leu Val Asp Ser

1 5 10 15

Ala Gly Gln Val Val Ala Asn Gln Glu Gly Val Phe Arg Ser Asn Cys

20 25 30

Met Asp Cys Leu Asp Arg Thr Asn Val Ile Gln Ser Leu Leu Ala Arg

35 40 45

Arg Ser Leu Gln Ala Gln Leu Gln Arg Leu Gly Val Leu His Val Gly

50 55 60

Gln Lys Leu Glu Glu Gln Asp Glu Phe Glu Lys Ile Phe Lys Asn Ala

65 70 75 80

Trp Ala Asp Asn Ala Asn Ala Cys Ala Lys Gln Tyr Ala Gly Thr Gly

85 90 95

Ala Leu Lys Thr Asp Phe Thr Arg Thr Gly Lys Arg Thr His Leu Gly

100 105 110

Leu Ile Met Asp Gly Trp Asn Ser Met Ile Arg Tyr Tyr Lys Asn Asn

115 120 125

Phe Ser Asp Gly Phe Arg Gln Asp Ser Ile Asp Leu Phe Leu Gly Asn

130 135 140

Tyr Ser Val Asp Glu Leu Glu Ser His Ser Pro Leu Ser Val Pro Arg

145 150 155 160

Asp Trp Lys Phe Leu Ala Leu Pro Ile Ile Met Val Val Ala Phe Ser  
                     165                    170                    175  
 Met Cys Ile Ile Cys Leu Leu Met Ala Gly Asp Thr Trp Thr Glu Thr  
                     180                    185                    190  
 Leu Ala Tyr Val Leu Phe Trp Gly Val Ala Ser Ile Gly Thr Phe Phe  
                     195                    200                    205  
 Ile Ile Leu Tyr Asn Gly Lys Asp Phe Val Asp Ala Pro Arg Leu Val  
                     210                    215                    220  
 Gln Lys Glu Lys Ile Asp  
                     225                    230

<210> 4293

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4293

Met Phe His Leu Gln Pro Arg Glu Ala Gln Lys Ser Ser Ser Ala Leu  
           1                    5                    10                    15  
 Glu Val His Lys Lys Tyr Gly Asp Ser Thr Gly Thr Thr Leu Glu Glu  
                     20                    25                    30  
 Ala Gln Lys Ile Asn Asn Gly Ser Ser Gln Ala Asp Gly Thr Leu Lys  
                     35                    40                    45  
 Pro Val Asp Glu Lys Glu Glu Ala Val Ala Ala Glu Val Gly Trp Met  
                     50                    55                    60  
 Thr Ser Val Lys Asp Trp Ala Gly Val Met Ile Ser Ala Gln Thr Leu  
                     65                    70                    75                    80  
 Thr Gly Arg Val Leu Val Val Leu Val Phe Ala Leu Ser Ile Gly Ala

	85	90	95
Leu Val Ile Tyr Phe Ile Asp Ser Ser Lys			
100	105		

&lt;210&gt; 4294

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4294

Met Leu Arg Thr Leu Val Leu Lys Gln Thr Leu Asp Leu Leu Leu Pro			
1	5	10	15
Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu			
20	25	30	
Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Leu Gln Leu Leu Asp			
35	40	45	
Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala			
50	55	60	
Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu			
65	70	75	80
Pro Trp Gln Gln Val Leu Ser Glu Leu Gln Trp Pro Gln Pro Leu Glu			
85	90	95	
Val Ala Val Leu Trp Leu Val Leu Val Val Arg Ala His Ile Leu Thr			
100	105	110	
Leu Leu Phe Leu Ser His Pro Val Thr Leu Leu Glu Ile Ala Ala Tyr			
115	120	125	
Pro Leu Leu Cys Gln Pro Gln Ala Ala Ser Leu Gln Gln Ile Met Cys			
130	135	140	

Tyr Ser His Pro Glu Ile Asp

145

150

<210> 4295

<211> 229

<212> PRT

<213> Homo sapiens

<400> 4295

Met Ala Gln Gly Asp Ala Ala Ala Thr Ala Gly His Ala Gln Leu His

1

5

10

15

Cys Gly His Glu Thr Ser Glu Gly Cys Val Ser Pro Pro Gly Val Thr

20

25

30

Val Pro Trp Pro Thr Gln Gly Glu Arg Pro Val Gly Pro Asn Ala Glu

35

40

45

Glu Arg Lys Arg Arg Ala Thr Leu Gln Trp Gly Arg Gly Ala Lys Lys

50

55

60

Gly Pro Arg Asn Pro Thr Pro Glu Asn Ser Arg Arg Leu Gly Arg Gln

65

70

75

80

Gly Ala Leu Val Gln Glu Arg Ser Phe Lys Lys Phe Gly Ala Arg Arg

85

90

95

Ala Leu Asn Ser Pro Val Lys Lys Thr Glu Gln Gln Phe Gly Gly Thr

100

105

110

Arg Leu Pro Gly His Asn Gly Arg Thr Glu Ala Arg Asp Arg Glu Pro

115

120

125

Leu Arg Arg Arg Pro Thr Pro Leu Thr Ile His Arg Phe Pro Gly Gly

130

135

140

Glu Ala Pro Lys His Ile Gly Ser Trp Leu Tyr Ser Ala Ala Val Pro

145                      150                      155                      160  
 Arg Pro Lys Ser Arg Pro Ala Ser Cys Cys Pro His Ser Leu Arg His  
                                  165                      170                      175  
 Arg Pro Leu Thr Ser Ser Pro Arg Ser Ser Gln Ser Cys Cys Gln Leu  
                                  180                      185                      190  
 Phe Gly Val His Arg Gln Arg Pro Ile Arg Ala Gly Leu Arg Gly Arg  
                                  195                      200                      205  
 His Ala Ser Glu Gly Arg Lys Arg Arg Gly Gly Gly Arg Val Arg Glu  
                                  210                      215                      220  
 Pro Arg Arg Leu Gln  
 225

<210> 4296

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4296

Met Cys Pro Arg Leu Ala Glu Val Leu Pro Leu Asn Ala Ala Gly Gln  
     1                      5                      10                      15  
 Asp Ala Thr Leu Ser Thr Ile Ser Ser Val Pro Gly Ile Pro Pro Thr  
                                  20                      25                      30  
 His Thr His Ile His Ser Leu Leu Leu Thr Ser Ser His Thr Leu Thr  
                                  35                      40                      45  
 His Pro Thr Thr Leu Thr His Phe Gln Asn Pro Pro Thr Leu Thr Leu  
                                  50                      55                      60  
 Thr Leu Ala Ser Pro Phe Pro Cys Ser Val Thr Ser Leu Gln Val Pro  
     65                      70                      75                      80

Ala Pro His Ser Leu Leu Gln Ser Gln Pro Pro Trp Cys Gln Pro Ser  
                             85                            90                            95  
 Leu Val Pro Ala Ile Ser Pro Lys Tyr Pro Pro Phe Trp Ala Pro Phe  
                             100                            105                            110  
 Cys Pro Glu Gly Pro Glu Val Ser Leu Gly Ser Thr Cys  
                             115                            120                            125

<210> 4297

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4297

Met Ile Ala Cys Arg Ala Leu Thr Val Leu Thr Trp Thr His Val Arg  
     1                            5                            10                            15  
 Ile Asp Glu Gly His Val Pro Ala Met Phe Ala Gln Ser Ser Val Phe  
                             20                            25                            30  
 Arg Glu Leu Ile Thr Gly Val Ala Lys Ala Thr Gly Ala Thr His Leu  
                             35                            40                            45  
 Leu Ser Cys Phe Gln Val Arg Thr Ala Leu Val Trp Ala Ser Glu Thr  
                             50                            55                            60  
 Ala Arg Trp Ile Leu Gly Val Leu Ser Phe Glu Arg Ser Leu Ile Tyr  
     65                            70                            75                            80  
 His Gln Glu Lys Phe Val Ala Phe Ala Ser Ser Ile Gln Pro Arg Ile  
                             85                            90                            95  
 His Ser Ser Val Leu Trp Gly Asn Gln Gly Cys Gly Ser Thr Gln Glu  
                             100                            105                            110  
 Ser Cys Arg Pro Arg His Phe Leu Gly Asn Ala Leu Leu Arg Trp Arg

115	120	125
Pro Ala Ala Cys Pro Gly	Pro Glu Gly Ser Gly Ser	Val Glu Gln Ser
130	135	140
Trp Gly Leu Gly Ala Gly	Arg Tyr Gly Thr Ser Cys	Phe Leu Arg Gly
145	150	155
Leu Arg Gly Arg Ala Gly	Gly Leu Gly Arg Gly	Arg Val Gly Ala Ile
165	170	175
Asp Met Arg Thr Ser Ser	Ser Ser Ser Ala Glu	Leu
180	185	

&lt;210&gt; 4298

&lt;211&gt; 518

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4298

Met Val Gln Leu Val Leu	Gln Tyr Arg Asp Tyr	Gln Arg Ala Thr Gln
1	5	10
Arg Leu Ala Gly Ile Pro	Glu Leu Leu Asn Lys	Leu Arg Gln Ala Pro
20	25	30
Asp Phe Tyr Val Glu Met	Lys Trp Glu Phe Thr	Ser Trp Val Pro Leu
35	40	45
Val Ser Lys Met Cys Pro	Ser Asp Val Tyr Arg	Val Trp Lys Arg Gly
50	55	60
Glu Ser Leu Arg Val Asp	Thr Ser Leu Leu Gly	Phe Glu His Met Thr
65	70	75
Trp Gln Arg Gly Arg Arg	Ser Phe Ile Phe Lys	Gly Gln Glu Ala Arg
85	90	95



Ala Leu Val Met Glu Val Asp His Asp Arg Gln Val Val His Val Glu  
100 105 110  
Thr Leu Gly Leu Thr Leu Gln Glu Pro Glu Thr Leu Leu Ala Ala Met  
115 120 125  
Arg Pro Ser Glu Glu His Val Ala Ser Arg Leu Thr Ser Pro Ile Val  
130 135 140  
Ser Thr His Leu Asp Thr Arg Asn Val Ala Phe Glu Arg Asn Lys Cys  
145 150 155 160  
Gly Ile Trp Gly Trp Arg Ser Glu Lys Met Glu Thr Val Ser Gly Tyr  
165 170 175  
Glu Ala Lys Val Tyr Ser Ala Thr Asn Val Glu Leu Val Thr Arg Thr  
180 185 190  
Arg Thr Glu His Leu Ser Asp Gln Asp Lys Ser Arg Ser Lys Ala Gly  
195 200 205  
Lys Thr Pro Phe Gln Ser Phe Leu Gly Met Ala Gln Gln His Ser Ser  
210 215 220  
His Thr Gly Ala Pro Val Gln Gln Ala Ala Ser Pro Thr Asn Pro Thr  
225 230 235 240  
Ala Ile Ser Pro Glu Glu Tyr Phe Asp Pro Asn Phe Ser Leu Glu Ser  
245 250 255  
Arg Asn Ile Gly Arg Pro Ile Glu Met Ser Ser Lys Val Gln Arg Phe  
260 265 270  
Lys Ala Thr Leu Trp Leu Ser Glu Glu His Pro Leu Ser Leu Gly Asp  
275 280 285  
Gln Val Thr Pro Ile Ile Asp Leu Met Ala Ile Ser Asn Ala His Phe  
290 295 300  
Ala Lys Leu Arg Asp Phe Ile Thr Leu Arg Leu Pro Pro Gly Phe Pro  
305 310 315 320  
Val Lys Ile Glu Ile Pro Leu Phe His Val Leu Asn Ala Arg Ile Thr

325 330 335  
 Phe Ser Asn Leu Cys Gly Cys Asp Glu Pro Leu Ser Ser Val Trp Val  
 340 345 350  
 Pro Ala Pro Ser Ser Ala Val Ala Ala Ser Gly Asn Ser Phe Pro Cys  
 355 360 365  
 Glu Val Asp Pro Thr Val Phe Glu Val Pro Asn Gly Tyr Ser Val Leu  
 370 375 380  
 Gly Met Glu Arg Asn Glu Pro Leu Arg Asp Glu Asp Asp Asp Leu Leu  
 385 390 395 400  
 Gln Phe Ala Ile Gln Gln Ser Leu Leu Glu Ala Gly Thr Glu Ala Glu  
 405 410 415  
 Gln Val Thr Val Trp Glu Ala Leu Thr Asn Thr Arg Pro Gly Ala Arg  
 420 425 430  
 Pro Pro Pro Gln Ala Thr Val Tyr Glu Glu Gln Leu Gln Leu Glu Arg  
 435 440 445  
 Ala Leu Gln Glu Ser Leu Gln Leu Ser Thr Glu Pro Arg Gly Pro Gly  
 450 455 460  
 Ser Pro Pro Arg Thr Pro Pro Ala Pro Gly Pro Pro Ser Phe Glu Glu  
 465 470 475 480  
 Gln Leu Arg Leu Ala Leu Glu Leu Ser Ser Arg Glu Gln Glu Glu Arg  
 485 490 495  
 Glu Arg Arg Gly Gln Gln Glu Glu Glu Tyr Leu Gln Arg Ile Leu Gln  
 500 505 510  
 Leu Ser Leu Thr Glu His  
 515

&lt;210&gt; 4299

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4299

Met Pro Gly Val Ser Val Ala Ile Arg Leu Ser Tyr Phe Leu Pro Leu

1 5 10 15

Lys Leu Pro Pro Asn Thr Pro Gly Gly Leu Leu Pro Trp Ser Thr Leu

20 25 30

Ala His Pro Leu Arg Asp Pro Arg Ala Ser Gly Gly Tyr Leu Val Glu

35 40 45

Lys Arg Pro Ser Pro Ser Asp Ala Phe Pro Ser Trp Arg Cys Ser Gly

50 55 60

Ala Trp Cys His Ala Gly Gly Gly Arg Gly Cys Arg Gly Ala His Ala

65 70 75 80

Trp Cys Pro Thr Ser Leu Val Leu Val Ser Ser Pro Asn Pro Thr Arg

85 90 95

Gly Leu Ser Leu Val Trp Asp Arg Leu Gly Lys Cys Gly Ala Ser Met

100 105 110

Ala Glu Ala Trp Leu Phe Glu Gly Val Thr Leu Gln Ser Leu Ser Gln

115 120 125

Gly Trp Gly Trp Pro Cys Gly Pro Gly Val Ala Glu Ser Gly Thr Gly

130 135 140

Val Gln Pro Ser Pro Thr Leu Trp Trp Ser Gly Ala Val Thr Ala Leu

145 150 155 160

Glu Pro Phe

&lt;210&gt; 4300

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4300

Met Val Ala Arg Leu Pro Thr Pro Lys Leu Pro Arg Trp Leu Arg Val

1 5 10 15

Leu Thr Pro Arg Thr Pro Thr Pro Phe Cys Gly Pro Ser Ala Arg Trp

20 25 30

Val Ala His Pro Asp Trp Ala Val Gly Ser Pro Leu Pro Arg Arg Gly

35 40 45

Gly Thr Arg Gly Arg His Ala Ala Ala Gly Ala Gly Glu Thr Thr Glu

50 55 60

Lys Glu Pro Ala Gly Gly Arg Lys Arg Pro Arg Pro Arg Pro Met Ala

65 70 75 80

Ala Gln Ser Leu Asp Arg Gly Phe Leu Glu Gly Ala Trp Asp Pro Cys

85 90 95

Cys His Cys Leu Arg Leu Gly Ile His Ser Arg Leu Leu Asp Pro Ser

100 105 110

Leu Gln Pro Arg Trp Asp Pro Cys Leu Leu Pro Leu Leu Pro Leu Ala

115 120 125

Pro Gly Arg Gly Arg Ala Glu Glu Thr Ser Leu Glu Gln Pro Ser Ala

130 135 140

Thr His Arg Gln Phe Pro Arg Arg Gly Gly

145 150

&lt;210&gt; 4301

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4301

Met Leu Gly Cys Phe Met Asp Leu Leu Ser Ile Leu Met Ile Gln Asp

1 5 10 15

Ile Leu Ser Met Pro Val Leu Phe Ser Leu Gly Leu Cys Phe His Ser

20 25 30

Lys Leu Leu Arg Cys Ser Pro Asn Pro Gly Glu Asn Lys Ile His Tyr

35 40 45

Gln Ile Gln Gln Val Gln Pro Ser Trp Ser Ser Leu Arg Ser His Arg

50 55 60

Val Ala Pro Trp Asn Asp Ala Ser Leu Cys Gln Gly Pro Pro Phe Gly

65 70 75 80

Ile Gly Arg Val Leu Gly Arg Ile Leu His Leu Gln Arg Pro Leu Gly

85 90 95

Ser Leu Arg Ser Gly Gly Gly Trp Thr Gln Lys Gly Arg Leu Asn Thr

100 105 110

Arg Trp Gly Arg Lys Asn Val Thr Ile Gly Ser Gln Thr Glu Ala Ser

115 120 125

Pro Leu Lys Tyr Gly Val Gly Gly Leu Thr Ser Ala Leu Trp Asn Val

130 135 140

Leu Ser Asp Cys Cys Arg Val Pro Gly Pro Pro

145 150 155

&lt;210&gt; 4302

&lt;211&gt; 443

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4302

Met	Ser	Gln	Arg	Asp	Gly	Val	Cys	Gly	Ser	His	Glu	Val	Ala	Gly	Ala
1					5				10					15	
Ala	Ser	Pro	Gly	Ala	Asp	Gly	Gly	Leu	Ser	Leu	Ala	Ala	Tyr	Cys	Lys
			20					25					30		
Asn	Ser	Val	Asp	Gly	Leu	Trp	Tyr	Cys	Phe	Asp	Asp	Ser	Asp	Val	Gln
		35					40					45			
Gln	Leu	Ser	Glu	Asp	Glu	Val	Cys	Thr	Gln	Thr	Ala	Tyr	Ile	Leu	Phe
	50					55					60				
Tyr	Gln	Arg	Arg	Thr	Ala	Ile	Pro	Ser	Trp	Ser	Ala	Asn	Ser	Ser	Val
65				70					75					80	
Ala	Gly	Ser	Thr	Ser	Ser	Ser	Leu	Cys	Glu	His	Trp	Val	Ser	Arg	Leu
			85						90					95	
Pro	Gly	Ser	Lys	Pro	Ala	Ser	Val	Thr	Ser	Ala	Ala	Ser	Ser	Arg	Arg
		100						105					110		
Thr	Ser	Leu	Ala	Ser	Leu	Ser	Glu	Ser	Val	Glu	Met	Thr	Gly	Glu	Arg
		115					120						125		
Ser	Glu	Asp	Asp	Gly	Gly	Phe	Ser	Thr	Arg	Pro	Phe	Val	Arg	Ser	Val
	130					135						140			
Gln	Arg	Gln	Ser	Leu	Ser	Ser	Arg	Ser	Ser	Val	Thr	Ser	Pro	Leu	Ala
145				150						155				160	
Val	Asn	Glu	Asn	Cys	Met	Arg	Pro	Ser	Trp	Ser	Leu	Ser	Ala	Lys	Leu
			165						170				175		
Gln	Met	Arg	Ser	Asn	Ser	Pro	Ser	Arg	Phe	Ser	Gly	Asp	Ser	Pro	Ile
		180						185					190		
His	Ser	Ser	Ala	Ser	Thr	Leu	Glu	Lys	Ile	Gly	Glu	Ala	Ala	Asp	Asp
		195						200					205		

Lys Val Ser Ile Ser Cys Phe Gly Ser Leu Arg Asn Leu. Ser Ser Ser  
210 215 220  
Tyr Gln Glu Pro Ser Asp Ser His Ser Arg Arg Glu His Lys Ala Val  
225 230 235 240  
Gly Arg Ala Pro Leu Ala Val Met Glu Gly Val Phe Lys Asp Glu Ser  
245 250 255  
Asp Thr Arg Arg Leu Asn Ser Ser Val Val Asp Thr Gln Ser Lys His  
260 265 270  
Ser Ala Gln Gly Asp Arg Leu Pro Pro Leu Ser Gly Pro Phe Asp Asn  
275 280 285  
Asn Asn Gln Ile Ala Tyr Val Asp Gln Ser Asp Ser Val Asp Ser Ser  
290 295 300  
Pro Val Lys Glu Val Lys Ala Pro Ser His Pro Gly Ser Leu Ala Lys  
305 310 315 320  
Lys Pro Glu Ser Thr Thr Lys Arg Ser Pro Ser Ser Lys Gly Thr Ser  
325 330 335  
Glu Pro Glu Lys Ser Leu Arg Lys Gly Arg Pro Ala Leu Ala Ser Gln  
340 345 350  
Glu Ser Ser Leu Ser Ser Thr Ser Pro Ser Ser Pro Leu Pro Val Lys  
355 360 365  
Val Ser Leu Lys Pro Ser Arg Ser Arg Ser Lys Ala Asp Ser Ser Ser  
370 375 380  
Arg Gly Ser Gly Arg His Ser Ser Pro Ala Pro Ala Gln Thr Gln Phe  
385 390 395 400  
Pro Ser Gly Glu Pro Gly Pro Ser Arg Gly Gly Gln Gly Gly Arg Glu  
405 410 415  
Ala Arg Ala Glu Leu Leu His Gly Gln Pro Ala Leu Pro Gln His Lys  
420 425 430  
His Gln Val Trp Phe Glu Glu Gly Gln Gln Val

435

440

&lt;210&gt; 4303

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4303

Met Tyr Thr Ser Leu His Thr Gln Ile Pro Glu Asn Gly Ile Ala Gly

1 5 10 15

Leu Tyr Asp Asn Phe Ile Phe Leu Phe Phe Leu Arg Gln Asp Leu Phe

20 25 30

Leu Ser Pro Arg Leu Gly Cys Gly Gly Ala Ile Met Ala His Cys Ser

35 40 45

Leu Asp Ile Leu Gly Ser Ser Asn Pro Pro Ile Ser Ala Ser Gln Val

50 55 60

Ala Gly Thr Thr Gly Thr Cys His Tyr Thr Trp Leu Ile Phe Val Phe

65 70 75 80

Phe Val Glu Val Gly Ser Pro Tyr Phe Ser Gln Ala Gly Leu Lys Leu

85 90 95

Leu Ser Ser Asp Asn Ser Leu Thr Ser Ala Ser Gln Ser Val Gly Ile

100 105 110

Ile Gly Met Ile His His Thr Gln Pro Tyr Leu Ile Phe Asn Ile Leu

115 120 125

Gly Asn Leu Tyr Pro Asn Phe Leu Gly Gly Cys Ile Ile Leu Phe Tyr

130 135 140

Gln Gln Cys Met Gly Val Pro Asn Ala Leu His Pro

145 150 155



&lt;210&gt; 4304

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4304

Met Ser Ser Gly Asn Tyr Gln Gln Ser Glu Ala Leu Ser Lys Pro Thr

1 5 10 15

Phe Ser Glu Glu Gln Ala Ser Ala Leu Val Glu Ser Val Phe Gly Leu

20 25 30

Lys Val Ser Lys Val Arg Pro Leu Pro Ser Tyr Asp Asp Gln Asn Phe

35 40 45

His Val Tyr Val Ser Lys Thr Lys Asp Gly Pro Thr Glu Tyr Val Leu

50 55 60

Lys Ile Ser Asn Thr Lys Ala Ser Lys Asn Pro Asp Leu Ile Glu Val

65 70 75 80

Gln Asn His Ile Ile Met Phe Leu Lys Ala Ala Gly Phe Pro Thr Ala

85 90 95

Ser Val Cys His Thr Lys Gly Asp Asn Thr Ala Ser Leu Val Ser Val

100 105 110

Asp Ser Gly Ser Glu Ile Lys Ser Tyr Leu Val Arg Leu Leu Thr Tyr

115 120 125

Leu Pro Gly Arg Pro Ile Ala Glu Leu Pro Val Ser Pro Gln Leu Leu

130 135 140

Tyr Glu Ile Gly Lys Leu Ala Ala Lys Leu Asp Lys Thr Leu Gln Glu

145 150 155 160

Gly Lys Pro Arg Val Thr Pro Leu Leu Ala Lys Asn

165

170

&lt;210&gt; 4305

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4305

Met Leu Gln Phe Pro Leu Asp Leu Ala Val Gln Asn Val Val Cys Pro

1

5

10

15

Val Ser Val Thr Glu Arg Gly Phe Pro Ser Leu Phe Phe Cys Gln Tyr

20

25

30

Ser Ala Asp Leu Trp Asn Ile Gly Ile Ser Val Phe Ile Gln Asp Gly

35

40

45

Pro Phe Leu Val Val Arg Leu Ile Leu Met Thr Tyr Phe Lys Val Ile

50

55

60

Asn Gln Met Leu Val Phe Phe Ala Ala Lys Asn Phe Leu Val Val Val

65

70

75

80

Leu Gln Leu Tyr Arg Leu Val Val Leu Ala Leu Ala Val Arg Ala Ser

85

90

95

Leu Arg Ser Gln Ser Glu Gly Leu Lys Gly Glu His Gly Cys Arg Ala

100

105

110

Gln Thr Ser Glu Ser Gly Pro Ser Gln Arg Asp Trp Gln Asn Glu Ser

115

120

125

Lys Glu Gly Leu Ala Ile Pro Leu Arg Gly Ser Pro Val Thr Ser Asp

130

135

140

Asp Ser His His Thr Pro

145

150

&lt;210&gt; 4306

&lt;211&gt; 803

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4306

Met Ala Glu Arg Gly Gly Asp Gly Gly Glu Ser Glu Arg Phe Asn Pro

1 5 10 15

Gly Glu Leu Arg Met Ala Gln Gln Gln Ala Leu Arg Phe Arg Gly Pro

20 25 30

Ala Pro Pro Pro Asn Ala Val Met Arg Gly Pro Pro Pro Leu Met Arg

35 40 45

Pro Pro Pro Pro Phe Gly Met Met Arg Gly Pro Pro Pro Pro Arg

50 55 60

Pro Pro Phe Gly Arg Pro Pro Phe Ile Leu Ile Cys Arg Gln Tyr Leu

65 70 75 80

Gln Arg Pro Pro Phe Met Pro Pro Pro Met Ser Ser Met Pro Pro Pro

85 90 95

Pro Gly Met Met Phe Pro Pro Gly Met Pro Pro Val Thr Ala Pro Gly

100 105 110

Thr Pro Ala Leu Pro Pro Thr Glu Glu Ile Trp Val Glu Asn Lys Thr

115 120 125

Pro Asp Gly Lys Val Tyr Tyr Tyr Asn Ala Arg Thr Arg Glu Ser Ala

130 135 140

Trp Thr Lys Pro Asp Gly Val Lys Val Ile Gln Gln Ser Glu Leu Thr

145 150 155 160

Pro Met Leu Ala Ala Gln Ala Gln Val Gln Ala Gln Ala Gln Ala Gln

165 170 175  
Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln  
180 185 190  
Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln  
195 200 205  
Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln  
210 215 220  
Ala Gln Ala Gln Val Gln Ala Gln Val Gln Ala Gln Val Gln Ala Gln  
225 230 235 240  
Ala Val Gly Ala Ser Thr Pro Thr Thr Ser Ser Pro Ala Pro Ala Val  
245 250 255  
Ser Thr Ser Thr Ser Ser Ser Thr Pro Ser Ser Thr Thr Ser Thr Thr  
260 265 270  
Thr Thr Ala Thr Ser Val Ala Gln Thr Val Ser Thr Pro Thr Thr Gln  
275 280 285  
Asp Gln Thr Pro Ser Ser Ala Val Ser Val Ala Thr Pro Thr Val Ser  
290 295 300  
Val Ser Thr Pro Ala Pro Thr Ala Thr Pro Val Gln Thr Val Pro Gln  
305 310 315 320  
Pro His Pro Gln Thr Leu Pro Pro Ala Val Pro His Ser Val Pro Gln  
325 330 335  
Pro Thr Thr Ala Ile Pro Ala Phe Pro Pro Val Met Val Pro Pro Phe  
340 345 350  
Arg Val Pro Leu Pro Gly Met Pro Ile Pro Leu Pro Gly Val Leu Pro  
355 360 365  
Gly Met Ala Pro Pro Ile Val Pro Met Ile His Pro Gln Val Ala Ile  
370 375 380  
Ala Ala Ser Pro Ala Thr Leu Ala Gly Ala Thr Ala Val Ser Glu Trp  
385 390 395 400

Thr Glu Tyr Lys Thr Ala Asp Gly Lys Thr Tyr Tyr Tyr Asn Asn Arg  
 405 410 415  
 Thr Leu Glu Ser Thr Trp Lys Lys Pro Gln Glu Leu Lys Glu Lys Glu  
 420 425 430  
 Lys Leu Glu Glu Lys Ile Lys Glu Pro Ile Lys Glu Pro Ser Glu Glu  
 435 440 445  
 Pro Ile Lys Glu Ile Lys Glu Glu Pro Lys Glu Glu Glu Met Thr Glu  
 450 455 460  
 Glu Glu Lys Ala Ala Gln Lys Ala Lys Pro Val Ala Thr Ala Pro Ile  
 465 470 475 480  
 Pro Gly Thr Pro Trp Cys Val Val Trp Thr Gly Asp Glu Arg Val Phe  
 485 490 495  
 Phe Tyr Asn Pro Thr Thr Arg Leu Ser Met Trp Asp Arg Pro Asp Asp  
 500 505 510  
 Leu Ile Gly Arg Ala Asp Val Asp Lys Ile Ile Gln Glu Pro Pro His  
 515 520 525  
 Lys Lys Gly Met Glu Glu Leu Lys Lys Leu Arg His Pro Thr Pro Thr  
 530 535 540  
 Met Leu Ser Ile Gln Lys Trp Gln Phe Ser Met Ser Ala Ile Lys Glu  
 545 550 555 560  
 Glu Gln Glu Leu Met Glu Glu Ile Asn Glu Asp Glu Pro Val Lys Ala  
 565 570 575  
 Lys Lys Arg Lys Arg Asp Asp Asn Lys Asp Ile Asp Ser Glu Lys Glu  
 580 585 590  
 Ala Ala Met Glu Ala Glu Ile Lys Ala Ala Arg Glu Arg Ala Ile Val  
 595 600 605  
 Pro Leu Glu Ala Arg Met Lys Gln Phe Lys Asp Met Leu Leu Glu Arg  
 610 615 620  
 Gly Val Ser Ala Phe Ser Thr Trp Glu Lys Glu Leu His Lys Ile Val

625                      630                      635                      640  
Phe Asp Pro Arg Tyr Leu Leu Leu Asn Pro Lys Glu Arg Lys Gln Val  
                         645                      650                      655  
Phe Asp Gln Tyr Val Lys Thr Arg Ala Glu Glu Glu Arg Arg Glu Lys  
                         660                      665                      670  
Lys Asn Lys Ile Met Gln Ala Lys Glu Asp Phe Lys Lys Met Met Glu  
                         675                      680                      685  
Glu Ala Lys Phe Asn Pro Arg Ala Thr Phe Ser Glu Phe Ala Ala Lys  
                         690                      695                      700  
His Ala Lys Asp Ser Arg Phe Lys Ala Ile Glu Lys Met Lys Asp Arg  
705                      710                      715                      720  
Glu Ala Leu Phe Asn Glu Phe Val Ala Ala Ala Arg Lys Lys Glu Lys  
                         725                      730                      735  
Glu Asp Ser Lys Thr Arg Gly Glu Lys Ile Lys Ser Asp Phe Phe Glu  
                         740                      745                      750  
Leu Leu Ser Asn His His Leu Asp Ser Gln Ser Arg Trp Ser Lys Val  
                         755                      760                      765  
Lys Asp Lys Val Glu Ser Asp Pro Arg Tyr Lys Thr Val Asp Ser Ser  
                         770                      775                      780  
Ser Met Arg Glu Asp Leu Phe Lys Gln Tyr Ile Glu Lys Ile Ala Lys  
785                      790                      795                      800  
Asn Leu Asp

&lt;210&gt; 4307

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4307

Met	Lys	Ser	Trp	Leu	Leu	Arg	Leu	His	Ser	Glu	Leu	Glu	His	Asn	Thr
1				5					10					15	
Thr	Leu	Phe	Cys	Glu	Ser	His	Cys	Pro	Ser	Leu	Ala	Leu	Gly	Ser	Phe
			20					25					30		
Cys	Arg	Leu	Leu	Leu	Gly	Pro	Leu	Thr	Cys	Pro	His	Gln	Gln	Thr	Phe
		35					40					45			
His	Phe	Gly	Ala	Arg	Pro	Asp	Phe	Leu	Ala	Leu	Gln	Gly	Ala	Pro	Gly
	50					55					60				
Ser	Phe	Ile	Pro	Cys	Pro	Gly	Pro	Gly	Ile	Ser	Pro	Phe	Ser	Arg	Val
65				70					75					80	
Leu	Trp	Val	Leu	Thr	Glu	Tyr	Trp	Gly	Pro	Arg	Pro	Gly	Cys	Trp	Val
			85					90					95		
Gly	Ser	Ala	Leu	Ile	Ala	Pro	Gly	Phe	Gln	Leu	Thr	Glu	His	Gly	Cys
		100					105					110			
Thr	Cys	Pro	Asp	Thr	Trp	Arg	His	Leu	Cys	Pro	Cys	Pro	Leu	Ser	Pro
	115					120						125			
Gln	Asp	Pro	Trp	Ser	Ser	Pro	Ser	Leu	Gly	Arg	Lys	Pro	Arg	Gly	Gly
	130					135					140				
Gly	Pro	Gly	Pro	Gln	Gly	Cys	Trp	Glu	Asp	Met	Gly	Pro	Val	Cys	Leu
145				150					155					160	
Gln	Leu	Gly	Gly	Leu	Gly	Gly	Ala	Gly	Asp	Thr	Arg	Pro	Gly	Ala	Gly
			165					170					175		
Gly	Ala	Gln	Leu	Arg	Gly	Arg	Arg	Arg	Gly	Leu	Asp	Glu	Gly	Gly	Gly
		180						185					190		
Val	Gln	Trp	Glu	Gly	Pro	Cys									
			195												

&lt;210&gt; 4308

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4308

Met Tyr Arg Val Met Trp Arg Glu Val Arg Arg Glu Val Gln Gln Thr

1 5 10 15

His Ala Val Cys Cys Gln Gly Trp Lys Lys Arg His Pro Gly Ala Leu

20 25 30

Thr Cys Glu Ala Ile Cys Ala Lys Pro Cys Leu Asn Gly Gly Val Cys

35 40 45

Val Arg Pro Asp Gln Cys Glu Cys Ala Pro Gly Trp Gly Gly Lys His

50 55 60

Cys His Val Asp Val Asp Glu Cys Arg Thr Ser Ile Thr Leu Cys Ser

65 70 75 80

His His Cys Phe Asn Thr Ala Gly Ser Phe Thr Cys Gly Cys Pro His

85 90 95

Asp Leu Val Leu Gly Val Asp Gly Arg Thr Cys Met Glu Gly Ser Pro

100 105 110

Glu Pro Pro Thr Ser Ala Ser Ile Leu Ser Val Ala Val Arg Glu Ala

115 120 125

Glu Lys Asp Glu Arg Ala Leu Lys Gln Glu Ile His Glu Leu Arg Gly

130 135 140

Arg Leu Glu Arg Leu Glu Gln Val Ser Gln Ala Cys Trp Val Gly Arg

145 150 155 160

Gly Gln Thr Ser Leu Ser Ile Pro

165



&lt;210&gt; 4309

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4309

Met Ser Leu Leu Gly Pro Lys Val Leu Leu Phe Leu Ala Ala Phe Ile

1 5 10 15

Ile Thr Ser Asp Trp Ile Pro Leu Gly Val Asn Ser Gln Arg Gly Asp

20 25 30

Asp Val Thr Gln Ala Thr Pro Glu Thr Phe Thr Glu Asp Pro Asn Leu

35 40 45

Val Asn Asp Pro Ala Thr Asp Glu Thr Glu Cys Trp Asp Glu Lys Phe

50 55 60

Thr Cys Thr Arg Leu Tyr Ser Val His Arg Pro Val Lys Gln Cys Ile

65 70 75 80

His Gln Leu Cys Phe Thr Ser Leu Arg Arg Met Tyr Ile Val Asn Lys

85 90 95

Glu Ile Cys Ser Arg Leu Val Cys Lys Glu His Glu Ala Met Lys Asp

100 105 110

Glu Leu Cys Arg Gln Met Ala Gly Leu Pro Pro Arg Arg Leu Arg Arg

115 120 125

Ser Asn Tyr Phe Arg Leu Pro Pro Cys Glu Asn Val Asp Leu Gln Arg

130 135 140

Pro Asn Gly Leu

145

&lt;210&gt; 4310

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4310

Met Glu Leu Trp Gly Arg Met Leu Trp Ala Leu Leu Ser Gly Pro Gly

1 5 10 15

Arg Arg Gly Ser Thr Arg Gly Trp Ala Phe Ser Ser Trp Gln Pro Gln

20 25 30

Pro Pro Leu Ala Gly Leu Ser Ser Ala Ile Glu Leu Val Ser His Trp

35 40 45

Thr Gly Val Phe Glu Lys Arg Gly Ile Pro Glu Ala Arg Glu Ser Ser

50 55 60

Glu Tyr Ile Val Ala His Val Leu Gly Ala Lys Thr Val Lys Phe Ser

65 70 75 80

Val Val Lys Arg Thr Gly Arg Gly Arg Arg Glu Asp Leu Gly Lys Gly

85 90 95

Tyr Pro Gly Phe Leu Phe Thr Lys Ser Ala

100 105

&lt;210&gt; 4311

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4311

Met Leu Leu Ala Gln Glu Glu Glu Glu Cys Arg Arg Glu Leu Leu Ser  
 1 5 10 15  
 Trp Val Pro Val Pro Gln Pro Pro Arg Glu Ser Cys Leu Asp Leu Leu  
 20 25 30  
 Val Asp Gln Pro His Ser Leu Leu Ser Ile Leu Asp Ala Gln Thr Trp  
 35 40 45  
 Leu Ser Gln Ala Thr Asp His Thr Phe Leu Gln Arg Ser His Tyr His  
 50 55 60  
 His Gly Asp His Pro Ser Tyr Ala Lys Pro Arg Leu Pro Leu Pro Val  
 65 70 75 80  
 Phe Thr Val Arg His Tyr Ala Gly Thr Val Thr Tyr Gln Val Pro Gly  
 85 90 95  
 Leu Arg Asp Arg Pro Gly  
 100

&lt;210&gt; 4312

&lt;211&gt; 388

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4312

Met Asp Lys Arg Val Lys Lys Leu Pro Leu Met Ala Leu Ser Thr Thr  
 1 5 10 15  
 Met Ala Glu Ser Phe Lys Glu Leu Asp Pro Asp Ser Ser Met Gly Lys  
 20 25 30  
 Ala Leu Glu Met Ser Cys Ala Ile Gln Asn Gln Leu Ala Arg Ile Leu  
 35 40 45  
 Ala Glu Phe Glu Met Thr Leu Glu Arg Asp Val Leu Gln Pro Leu Ser

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Arg Glu Leu Pro Glu Pro Leu Met Thr Phe Asp Leu Tyr Asp Asp Trp

290

295

300

Met Arg Ala Ala Ser Leu Lys Glu Pro Gly Ala Arg Leu Gln Ala Leu

305

310

315

320

Gln Glu Val Cys Ser Arg Leu Pro Pro Glu Asn Leu Ser Asn Leu Arg

325

330

335

Tyr Leu Met Lys Phe Leu Ala Arg Leu Ala Glu Glu Gln Glu Val Asn

340

345

350

Lys Met Thr Pro Ser Asn Ile Ala Ile Val Leu Gly Pro Asn Leu Leu

355

360

365

Trp Pro Pro Glu Lys Glu Gly Thr Glu Pro Ala Arg Glu Leu Gly Ser

370

375

380

Gln Thr Leu Cys

385

<210> 4313

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4313

Met Trp Pro Phe Arg Leu Arg Cys Pro Ile Tyr Phe Lys Thr Arg Leu

1

5

10

15

Leu Tyr Ser Ser Ser Gln Asp Gly Phe Leu Ser Ser Ser Thr Asn Tyr

20

25

30

Tyr Asn His Arg Thr Tyr Pro Gly Leu Val Asn Trp Leu Phe Val Leu

35

40

45

Thr Glu Pro Glu Leu Thr Gly Glu Leu Gly Asp Asp Asp Arg Lys Gly

50                                      55                                      60  
 Met His Thr Gly Gly Ile Ile Arg Trp Leu Gly Arg Pro Ser Ser Gln  
 65                                      70                                      75                                      80  
 Leu Lys Pro Ile Phe His Ala Glu Glu Arg Arg Val Pro Pro Pro Pro  
                                     85                                      90                                      95  
 Glu Arg Leu Val Gly Arg Ala Ser Pro Arg Glu Gln Ala Thr Val Phe  
                                     100                                      105                                      110  
 Lys Arg Ile Cys Ala Pro Leu His Ala Glu Val Phe Cys Arg Ala Gly  
                                     115                                      120                                      125  
 Leu Cys Ala Cys His Pro Asp Cys Thr Ala Ala Gly  
                                     130                                      135                                      140

<210> 4314

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4314

Met Cys Arg Leu Arg Glu Thr Ala Leu Ala Val Pro Gly Pro Pro Pro  
 1                                      5                                      10                                      15  
 Leu Gly Thr Asp Pro Trp Gly Ala Pro Phe Pro Pro Ser Phe Val Ser  
                                     20                                      25                                      30  
 Ser Phe Phe Phe Phe Phe Phe Ser Glu Thr Glu Ser His Ser Val Ser  
                                     35                                      40                                      45  
 Gln Ala Gly Val Gln Trp His Asp Ile Ser Ser Leu Gln Pro Pro Pro  
                                     50                                      55                                      60  
 Ala Gly Leu Lys Gln Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp  
 65                                      70                                      75                                      80

Tyr Arg Ser Thr Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg  
                             85                            90                            95  
 Asp Gly Val Ser Leu Cys Trp Pro Gly Trp Ser Pro Thr Pro Asp Leu  
                             100                            105                            110  
 Gly

<210> 4315

<211> 379

<212> PRT

<213> Homo sapiens

<400> 4315

Met Pro Lys His Pro Asn Ser Leu Ser Gly Lys Gly Thr Gln Leu Val  
   1                            5                            10                            15  
 Pro Ser Ser His Leu Pro Pro Pro Lys Leu Arg Ile Pro Asn Val Phe  
                             20                            25                            30  
 Ser Ile Ser Val Ala Leu Ala Lys Arg His Leu Ser Gln Pro Gln Leu  
                             35                            40                            45  
 Ser Ser Asp Arg Met Phe Gly Thr Asn Arg Asn Ala Ile Ser Met Ile  
                             50                            55                            60  
 Arg Pro Leu Arg Pro Gln Glu Thr Asp Leu Asp Leu Val Asp Gly Asp  
   65                            70                            75                            80  
 Ser Thr Glu Val Leu Glu Asn Met Asp Thr Ser Cys Asp Asp Gly Leu  
                             85                            90                            95  
 Phe Ser Tyr Asp Ser Leu Asp Ser Pro Asn Ser Asp Asp Gln Glu His  
                             100                            105                            110  
 Cys Asp Ser Ala Lys Lys Val Ala Tyr Ser Lys Pro Pro Thr Pro Pro

115 120 125  
Leu His Arg Phe Pro Ser Trp Glu Ser Arg Ile Tyr Ala Val Ala Lys  
130 135 140  
Ser Gly Ile Arg Met Ser Glu Ala Phe Asn Met Glu Ser Val Asn Lys  
145 150 155 160  
Asn Ser Ala Ala Thr Leu Ser Tyr Thr Thr Ser Gly Leu Tyr Thr Ser  
165 170 175  
Leu Ile Tyr Lys Asn Met Thr Thr Pro Val Tyr Thr Thr Leu Lys Gly  
180 185 190  
Lys Ala Thr Gln Ile Ser Ser Ser Pro Phe Leu Asp Asp Ser Ser Gly  
195 200 205  
Ser Glu Glu Glu Asp Ser Ser Arg Ser Ser Ser Arg Thr Ser Glu Ser  
210 215 220  
Asp Ser Arg Ser Arg Ser Gly Pro Gly Ser Pro Arg Ala Met Lys Arg  
225 230 235 240  
Gly Val Ser Leu Ser Ser Val Ala Ser Glu Ser Asp Tyr Ala Ile Pro  
245 250 255  
Pro Asp Ala Tyr Ser Thr Asp Thr Glu Tyr Ser Gln Pro Glu Gln Lys  
260 265 270  
Leu Pro Lys Thr Cys Ser Ser Ser Ser Asp Asn Gly Lys Asn Glu Pro  
275 280 285  
Leu Glu Lys Ser Gly Tyr Leu Leu Lys Met Ser Gly Lys Val Lys Ser  
290 295 300  
Trp Lys Arg Arg Trp Phe Val Leu Lys Gly Gly Glu Leu Leu Tyr Tyr  
305 310 315 320  
Lys Ser Pro Ser Asp Val Ile Arg Lys Pro Gln Gly His Ile Glu Leu  
325 330 335  
Ser Ala Ser Cys Ser Ile Leu Arg Gly Asp Asn Lys Gln Thr Val Gln  
340 345 350



Val Leu Asn Phe Phe Phe Phe Phe Phe Phe Leu Tyr His Ala Arg Leu  
355 360 365

Asn Ser Gln Leu Ser Asn Leu Met Glu Arg Arg  
370 375

<210> 4316

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4316

Met Val Phe Pro Arg Leu Phe Thr Cys Pro Thr Leu Glu Thr Thr Asn  
1 5 10 15  
Phe Lys Val Gly Lys Trp His Ser Pro Pro Ala Leu Met Gly Pro Trp  
20 25 30  
Glu Gly Pro Leu Ser Ala Arg Ala Cys Cys Gly Ser Gln Ser Ser Glu  
35 40 45  
Pro Ala Ala Leu Arg Ser Leu Ser Ala Arg Ala Cys His Arg Pro Tyr  
50 55 60  
Ser Ser Glu Pro Ala Ala Leu Arg Leu Leu Asn Lys Thr Leu Leu Arg  
65 70 75 80  
Ser Cys Cys Ala Ala Gln Gly Thr His Pro Gln Ala Val Leu Val Leu  
85 90 95  
Val Gly Leu Pro Leu Ser His Gly Glu Thr His Arg Pro Thr Ser Val  
100 105 110

<210> 4317

<213> Homo sapiens

180                      185                      190

Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr

195

200

205

Val

<210> 4318

<211> 559

<212> PRT

<213> Homo sapiens

<400> 4318

Met Pro Ser Gly Lys Trp Glu Ala Trp Gly Tyr Gly Lys Asp Gly Thr

1

5

10

15

Gly Ser Arg Lys Ala Gln Glu Lys Asn Ser Gly Ala Asn Ser Ser Ser

20

25

30

Leu Ser Thr Ala Ser Ala Pro Gly Ala Ala Pro Leu Thr Ile Ser Ser

35

40

45

Pro Leu His Val Pro Ser Ser Leu Pro Gly Pro Ala Ser Ser Pro Met

50

55

60

Pro Ile Pro Asn Ser Ser Pro Leu Ala Ser Pro Val Ser Ser Thr Val

65

70

75

80

Ser Val Pro Leu Ser Ser Ser Leu Pro Ile Ser Val Pro Thr Thr Leu

85

90

95

Pro Ala Pro Ala Ser Ala Pro Leu Thr Ile Pro Ile Ser Ala Pro Leu

100

105

110

Thr Val Ser Ala Ser Gly Pro Ala Leu Leu Thr Ser Val Thr Pro Pro

115

120

125

Leu Ala Pro Val Val Pro Ala Ala Pro Gly Pro Pro Ser Leu Ala Pro

130 135 140  
Ser Gly Ala Ser Pro Ser Ala Ser Ala Leu Thr Leu Gly Leu Ala Thr  
145 150 155 160  
Ala Pro Ser Leu Ser Ser Ser Gln Thr Pro Gly His Pro Leu Leu Leu  
165 170 175  
Ala Pro Thr Ser Ser His Val Pro Gly Leu Asn Ser Thr Val Ala Pro  
180 185 190  
Ala Cys Ser Pro Val Leu Val Pro Ala Ser Ala Leu Ala Ser Pro Phe  
195 200 205  
Pro Ser Ala Pro Asn Pro Ala Pro Ala Gln Ala Ser Leu Leu Ala Pro  
210 215 220  
Ala Ser Ser Ala Ser Gln Ala Leu Ala Thr Pro Leu Ala Pro Met Ala  
225 230 235 240  
Ala Pro Gln Thr Ala Ile Leu Ala Pro Ser Pro Ala Pro Pro Leu Ala  
245 250 255  
Pro Leu Pro Val Leu Ala Pro Ser Pro Gly Ala Ala Pro Val Leu Ala  
260 265 270  
Ser Ser Gln Thr Pro Val Pro Val Met Ala Pro Ser Ser Thr Pro Gly  
275 280 285  
Thr Ser Leu Ala Ser Ala Ser Pro Val Pro Ala Pro Thr Pro Val Leu  
290 295 300  
Ala Pro Ser Ser Thr Gln Thr Met Leu Pro Ala Pro Val Pro Ser Pro  
305 310 315 320  
Leu Pro Ser Pro Ala Ser Thr Gln Thr Leu Ala Leu Ala Pro Ala Leu  
325 330 335  
Ala Pro Thr Leu Gly Gly Ser Ser Pro Ser Gln Thr Leu Ser Leu Gly  
340 345 350  
Thr Gly Asn Pro Gln Gly Pro Phe Pro Thr Gln Thr Leu Ser Leu Thr  
355 360 365

Pro Ala Ser Ser Leu Val Pro Thr Pro Ala Gln Thr Leu Ser Leu Ala  
 370 375 380  
 Pro Gly Pro Pro Leu Gly Pro Thr Gln Thr Leu Ser Leu Ala Pro Ala  
 385 390 395 400  
 Pro Pro Leu Ala Pro Ala Ser Pro Val Gly Pro Ala Pro Ala His Thr  
 405 410 415  
 Leu Thr Leu Ala Pro Ala Ser Ser Ser Ala Ser Leu Leu Ala Pro Ala  
 420 425 430  
 Ser Val Gln Thr Leu Thr Leu Ser Pro Ala Pro Val Pro Thr Leu Gly  
 435 440 445  
 Pro Ala Ala Ala Gln Thr Leu Ala Leu Ala Pro Ala Ser Thr Gln Ser  
 450 455 460  
 Pro Ala Ser Gln Ala Ser Ser Leu Val Val Ser Ala Ser Gly Ala Ala  
 465 470 475 480  
 Pro Leu Pro Val Thr Met Val Ser Arg Leu Pro Val Ser Lys Tyr Glu  
 485 490 495  
 Pro Asp Thr Leu Thr Leu Arg Ser Gly Pro Pro Ser Pro Pro Ser Thr  
 500 505 510  
 Ala Thr Ser Phe Gly Gly Pro Arg Pro Arg Arg Gln Pro Pro Pro Pro  
 515 520 525  
 Pro Arg Ser Pro Phe Tyr Leu Val Ser Phe Thr Ser Ser Arg Gly Asn  
 530 535 540  
 Arg Lys Leu Ser Phe Phe Gly Val Leu Val Gly Trp Met Glu Gln  
 545 550 555

&lt;210&gt; 4319

&lt;211&gt; 962

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4319

Met	Asp	Thr	Asp	Leu	Tyr	Asp	Glu	Phe	Gly	Asn	Tyr	Ile	Gly	Pro	Glu
1				5					10					15	
Leu	Asp	Ser	Asp	Glu	Asp	Asp	Asp	Glu	Leu	Gly	Arg	Glu	Thr	Lys	Asp
			20					25					30		
Leu	Asp	Glu	Met	Asp	Asp	Asp	Asp	Asp	Asp	Asp	Asp	Val	Gly	Asp	His
			35					40					45		
Asp	Asp	Asp	His	Pro	Gly	Met	Glu	Val	Val	Leu	His	Glu	Val	Tyr	Gly
			50				55				60				
Pro	Glu	Val	Glu	Thr	Ile	Val	Gln	Glu	Glu	Asp	Thr	Gln	Pro	Leu	Thr
			65			70				75				80	
Glu	Pro	Ile	Ile	Lys	Pro	Val	Lys	Thr	Lys	Lys	Phe	Thr	Leu	Met	Glu
				85				90						95	
Gln	Thr	Leu	Pro	Val	Thr	Val	Tyr	Glu	Met	Asp	Phe	Leu	Ala	Asp	Leu
			100					105						110	
Met	Asp	Asn	Ser	Glu	Leu	Ile	Arg	Asn	Val	Thr	Leu	Cys	Gly	His	Leu
			115					120					125		
His	His	Gly	Lys	Thr	Cys	Phe	Val	Asp	Cys	Leu	Ile	Glu	Gln	Thr	His
			130				135					140			
Pro	Glu	Ile	Arg	Lys	Arg	Tyr	Asp	Gln	Asp	Leu	Cys	Tyr	Thr	Asp	Ile
			145				150				155			160	
Leu	Phe	Thr	Glu	Gln	Glu	Arg	Gly	Val	Gly	Ile	Lys	Ser	Thr	Pro	Val
				165				170						175	
Thr	Val	Val	Leu	Pro	Asp	Thr	Lys	Gly	Lys	Ser	Tyr	Leu	Phe	Asn	Ile
			180					185						190	
Met	Asp	Thr	Pro	Gly	His	Val	Asn	Phe	Ser	Asp	Glu	Val	Thr	Ala	Gly
			195					200						205	

Leu Arg Ile Ser Asp Gly Val Val Leu Phe Ile Asp Ala Ala Glu Gly  
 210 215 220  
 Val Met Leu Asn Thr Glu Arg Leu Ile Lys His Ala Val Gln Glu Arg  
 225 230 235 240  
 Leu Ala Val Thr Val Cys Ile Asn Lys Ile Asp Arg Leu Ile Leu Glu  
 245 250 255  
 Leu Lys Leu Pro Pro Thr Asp Ala Tyr Tyr Lys Leu Arg His Ile Val  
 260 265 270  
 Asp Glu Val Asn Gly Leu Ile Ser Met Tyr Ser Thr Asp Glu Asn Leu  
 275 280 285  
 Ile Leu Ser Pro Leu Leu Gly Asn Val Cys Phe Ser Ser Ser Gln Tyr  
 290 295 300  
 Ser Ile Cys Phe Thr Leu Gly Ser Phe Ala Lys Ile Tyr Ala Asp Thr  
 305 310 315 320  
 Phe Gly Asp Ile Asn Tyr Gln Glu Phe Ala Lys Arg Leu Trp Gly Asp  
 325 330 335  
 Ile Tyr Phe Asn Pro Lys Thr Arg Lys Phe Thr Lys Lys Ala Pro Thr  
 340 345 350  
 Ser Ser Ser Gln Arg Ser Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr  
 355 360 365  
 Lys Ile Leu Ala Gln Val Val Gly Asp Val Asp Thr Ser Leu Pro Arg  
 370 375 380  
 Thr Leu Asp Glu Leu Gly Ile His Leu Thr Lys Glu Glu Leu Lys Leu  
 385 390 395 400  
 Asn Ile Arg Pro Leu Leu Arg Leu Val Cys Lys Lys Phe Phe Gly Glu  
 405 410 415  
 Phe Thr Gly Phe Val Asp Met Cys Val Gln His Ile Pro Ser Pro Lys  
 420 425 430  
 Val Gly Ala Lys Pro Lys Ile Glu His Thr Tyr Thr Gly Gly Val Asp

435 440 445  
Ser Asp Leu Gly Glu Ala Met Ser Asp Cys Asp Pro Asp Gly Pro Leu  
450 455 460  
Met Cys His Thr Thr Lys Met Tyr Ser Thr Asp Asp Gly Val Gln Phe  
465 470 475 480  
His Ala Phe Gly Arg Val Leu Ser Gly Thr Ile His Ala Gly Gln Pro  
485 490 495  
Val Lys Val Leu Gly Glu Asn Tyr Thr Leu Glu Asp Glu Glu Asp Ser  
500 505 510  
Gln Ile Cys Thr Val Gly Arg Leu Trp Ile Ser Val Ala Arg Tyr His  
515 520 525  
Ile Glu Val Asn Arg Val Pro Ala Gly Asn Trp Val Leu Ile Glu Gly  
530 535 540  
Val Asp Gln Pro Ile Val Lys Thr Ala Thr Ile Thr Glu Pro Arg Gly  
545 550 555 560  
Asn Glu Glu Ala Gln Ile Phe Arg Pro Leu Lys Phe Asn Thr Thr Ser  
565 570 575  
Val Ile Lys Ile Ala Val Glu Pro Val Asn Pro Ser Glu Leu Pro Lys  
580 585 590  
Met Leu Asp Gly Leu Arg Lys Val Asn Lys Ser Tyr Pro Ser Leu Thr  
595 600 605  
Thr Lys Val Glu Glu Ser Gly Glu His Val Ile Leu Gly Thr Gly Glu  
610 615 620  
Leu Tyr Leu Asp Cys Val Met His Asp Leu Arg Lys Met Tyr Ser Glu  
625 630 635 640  
Ile Asp Ile Lys Val Ala Asp Pro Val Val Thr Phe Cys Glu Thr Val  
645 650 655  
Val Glu Thr Ser Ser Leu Lys Cys Phe Ala Glu Thr Pro Asn Lys Lys  
660 665 670



Asn Lys Ile Thr Met Ile Ala Glu Pro Leu Glu Lys Gly Leu Ala Glu  
675 680 685

Asp Ile Glu Asn Glu Val Val Gln Ile Thr Trp Asn Arg Lys Lys Leu  
690 695 700

Gly Glu Phe Phe Gln Thr Lys Tyr Asp Trp Asp Leu Leu Ala Ala Arg  
705 710 715 720

Ser Ile Trp Ala Phe Gly Pro Asp Ala Thr Gly Pro Asn Ile Leu Val  
725 730 735

Asp Asp Thr Leu Pro Ser Glu Val Asp Lys Ala Leu Leu Gly Ser Val  
740 745 750

Lys Asp Ser Ile Val Gln Gly Phe Gln Trp Gly Thr Arg Glu Gly Pro  
755 760 765

Leu Cys Asp Glu Leu Ile Arg Asn Val Lys Phe Lys Ile Leu Asp Ala  
770 775 780

Val Val Ala Gln Glu Pro Leu His Arg Gly Gly Gly Gln Ile Ile Pro  
785 790 795 800

Thr Ala Arg Arg Val Val Tyr Ser Ala Phe Leu Met Ala Thr Pro Arg  
805 810 815

Leu Met Glu Pro Tyr Tyr Phe Val Glu Val Gln Ala Pro Ala Asp Cys  
820 825 830

Val Ser Ala Val Tyr Thr Val Leu Ala Arg Arg Arg Gly His Val Thr  
835 840 845

Gln Asp Ala Pro Ile Pro Gly Ser Pro Leu Tyr Thr Ile Lys Ala Phe  
850 855 860

Ile Pro Ala Ile Asp Ser Phe Gly Phe Glu Thr Asp Leu Arg Thr His  
865 870 875 880

Thr Gln Gly Gln Ala Phe Ser Leu Ser Val Phe His His Trp Gln Ile  
885 890 895

Val Pro Gly Asp Pro Leu Asp Lys Ser Ile Val Ile Arg Pro Leu Glu

900 905 910  
 Pro Gln Pro Ala Pro His Leu Ala Arg Glu Phe Met Ile Lys Thr Arg  
 915 920 925  
 Arg Arg Lys Gly Leu Ser Glu Asp Val Ser Ile Ser Lys Phe Phe Asp  
 930 935 940  
 Asp Pro Met Leu Leu Glu Leu Ala Lys Gln Asp Val Val Leu Asn Tyr  
 945 950 955 960  
 Pro Met

<210> 4320

<211> 281

<212> PRT

<213> Homo sapiens

<400> 4320

Met Arg Phe Val Val Ala Leu Val Leu Leu Asn Val Ala Ala Ala Gly  
 1 5 10 15  
 Ala Val Pro Leu Leu Ala Thr Glu Ser Val Lys Gln Glu Glu Ala Gly  
 20 25 30  
 Val Arg Pro Ser Ala Gly Asn Val Ser Thr His Pro Ser Leu Ser Gln  
 35 40 45  
 Arg Pro Gly Gly Ser Thr Lys Ser His Pro Glu Pro Gln Thr Pro Lys  
 50 55 60  
 Asp Ser Pro Ser Lys Ser Gly Ser Glu Ala Gln Thr Thr Lys Asp Val  
 65 70 75 80  
 Pro Asn Lys Ser Gly Ala Asp Gly Gln Thr Pro Lys Asp Gly Ser Ser  
 85 90 95

Lys Ser Gly Ala Glu Asp Gln Thr Pro Lys Asp Val Pro Asn Lys Ser  
100 105 110  
Gly Ala Glu Lys Gln Thr Pro Lys Asp Gly Ser Asn Lys Ser Gly Ala  
115 120 125  
Glu Glu Gln Gly Pro Ile Asp Gly Pro Ser Lys Ser Gly Ala Glu Glu  
130 135 140  
Gln Thr Ser Lys Asp Ser Pro Asn Lys Glu Glu Val Lys Ser Ser Glu  
145 150 155 160  
Pro Thr Glu Asp Val Glu Pro Lys Glu Ala Glu Asp Asp Asp Thr Gly  
165 170 175  
Pro Glu Glu Gly Ser Pro Pro Lys Glu Glu Lys Glu Lys Met Ser Gly  
180 185 190  
Ser Ala Ser Ser Glu Asn Arg Glu Gly Thr Leu Ser Asp Ser Thr Gly  
195 200 205  
Ser Glu Lys Asp Asp Leu Tyr Pro Asn Gly Ser Gly Asn Gly Ser Ala  
210 215 220  
Glu Ser Ser His Phe Phe Ala Tyr Leu Val Thr Ala Ala Ile Leu Val  
225 230 235 240  
Ala Val Leu Tyr Ile Ala His His Asn Lys Arg Lys Ile Ile Ala Phe  
245 250 255  
Val Leu Glu Gly Lys Arg Ser Lys Val Thr Arg Arg Pro Lys Ala Ser  
260 265 270  
Asp Tyr Gln Arg Leu Asp Gln Lys Ser  
275 280

&lt;210&gt; 4321

&lt;211&gt; 647

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4321

Met	Ala	Ala	Ile	Leu	Gly	Asp	Thr	Ile	Met	Val	Ala	Lys	Gly	Leu	Val
1				5					10					15	
Lys	Leu	Thr	Gln	Ala	Ala	Val	Glu	Thr	His	Leu	Gln	His	Leu	Gly	Ile
			20						25					30	
Gly	Gly	Glu	Leu	Ile	Met	Ala	Ala	Arg	Ala	Leu	Gln	Ser	Thr	Ala	Val
			35						40					45	
Glu	Gln	Ile	Gly	Met	Phe	Leu	Gly	Lys	Val	Gln	Gly	Gln	Asp	Lys	His
			50						55					60	
Glu	Glu	Tyr	Phe	Ala	Glu	Asn	Phe	Gly	Gly	Pro	Glu	Gly	Glu	Phe	His
			65						70					75	
Phe	Ser	Val	Pro	His	Ala	Ala	Gly	Ala	Ser	Thr	Asp	Phe	Ser	Ser	Ala
									85					90	
Ser	Ala	Pro	Asp	Gln	Ser	Ala	Pro	Pro	Ser	Leu	Gly	His	Ala	His	Ser
									100					105	
Glu	Gly	Pro	Ala	Pro	Ala	Tyr	Val	Ala	Ser	Gly	Pro	Phe	Arg	Glu	Ala
									115					120	
Gly	Phe	Pro	Gly	Gln	Ala	Ser	Ser	Pro	Leu	Gly	Arg	Ala	Asn	Gly	Arg
									130					135	
Leu	Phe	Ala	Asp	Pro	Arg	Asp	Ser	Phe	Ser	Ala	Met	Gly	Phe	Gln	Arg
									140					145	
Arg	Phe	Phe	His	Gln	Asp	Gln	Ser	Pro	Val	Gly	Gly	Leu	Thr	Ala	Glu
									150					155	
Asp	Ile	Glu	Lys	Ala	Arg	Gln	Ala	Lys	Ala	Arg	Pro	Glu	Asn	Lys	Gln
									165					170	
His	Lys	Gln	Thr	Leu	Ser	Glu	His	Ala	Arg	Glu	Arg	Lys	Val	Pro	Val
									175					180	
									185					190	
									195					200	
									205						

Thr Arg Ile Gly Arg Leu Ala Asn Phe Gly Gly Leu Ala Val Gly Leu  
210 215 220  
Gly Phe Gly Ala Leu Ala Glu Val Ala Lys Lys Ser Leu Arg Ser Glu  
225 230 235 240  
Asp Pro Ser Gly Lys Lys Ala Val Leu Gly Ser Ser Pro Phe Leu Ser  
245 250 255  
Glu Ala Asn Ala Glu Arg Ile Val Arg Thr Leu Cys Lys Val Arg Gly  
260 265 270  
Ala Ala Leu Lys Leu Gly Gln Met Leu Ser Ile Gln Asp Asp Ala Phe  
275 280 285  
Ile Asn Pro His Leu Ala Lys Ile Phe Glu Arg Val Arg Gln Ser Ala  
290 295 300  
Asp Phe Met Pro Leu Lys Gln Met Met Lys Thr Leu Asn Asn Asp Leu  
305 310 315 320  
Gly Pro Asn Trp Arg Asp Lys Leu Glu Tyr Phe Glu Glu Arg Pro Phe  
325 330 335  
Ala Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg Met Lys Gly Gly  
340 345 350  
Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val Ala Gln Ser Ile  
355 360 365  
Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn Met Ser Asn Met  
370 375 380  
Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp Val Leu Arg Arg  
385 390 395 400  
Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala Ala Cys Ala Arg  
405 410 415  
Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe Tyr Val Pro Glu  
420 425 430  
Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr Thr Glu Leu Val

435 440 445  
Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser Gln Glu Ile Arg  
450 455 460  
Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu Arg Glu Leu Phe  
465 470 475 480  
Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser Asn Phe Phe Tyr  
485 490 495  
Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe Gly Ala Thr Arg  
500 505 510  
Glu Tyr Asp Arg Ser Phe Thr Asp Leu Tyr Ile Gln Ile Ile Arg Ala  
515 520 525  
Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys Ser Ile Glu Met  
530 535 540  
Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu Asp Ala His Leu  
545 550 555 560  
Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser Asp Glu Pro Phe  
565 570 575  
Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His Asn Leu Ile Pro  
580 585 590  
Val Met Leu Arg His Arg Leu Val Pro Pro Pro Glu Glu Thr Tyr Ser  
595 600 605  
Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys Ser Lys Leu Lys  
610 615 620  
Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala Tyr Ser Asn Tyr  
625 630 635 640  
Cys Lys Arg Gln Ala Gln Gln  
645

&lt;210&gt; 4322

&lt;211&gt; 419

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4322

Met Ser Arg Gly Thr Arg Glu Ser Ala Cys Cys Met Leu Thr Ser Trp

1 5 10 15

Ala Ser Arg Gly Trp Pro Ala Ser Val Pro Leu Arg Ser Trp Cys Ser

20 25 30

Cys Ser Met Ser Ser Leu Ala Ser Ser Thr Arg Leu Pro Arg Lys Leu

35 40 45

Arg Ala Ala Thr Gly Val Asp Ile Asn Met Arg Val Gly Val His Ser

50 55 60

Gly Ser Val Leu Cys Gly Val Ile Gly Leu Gln Lys Trp Gln Tyr Asp

65 70 75 80

Val Trp Ser His Asp Val Thr Leu Ala Asn His Met Glu Ala Gly Gly

85 90 95

Val Pro Gly Arg Val His Ile Thr Gly Ala Thr Leu Ala Leu Leu Ala

100 105 110

Gly Ala Tyr Ala Val Glu Asp Ala Gly Met Glu His Arg Asp Pro Tyr

115 120 125

Leu Arg Glu Leu Gly Glu Pro Thr Tyr Leu Val Ile Asp Pro Arg Ala

130 135 140

Glu Glu Glu Asp Glu Lys Gly Thr Ala Gly Gly Leu Leu Ser Ser Leu

145 150 155 160

Glu Gly Leu Lys Met Arg Pro Ser Leu Leu Met Thr Arg Tyr Leu Glu

165 170 175

Ser Trp Gly Ala Ala Lys Pro Phe Ala His Leu Ser His Gly Asp Ser

180 185 190  
Pro Val Ser Thr Ser Thr Pro Leu Pro Glu Lys Thr Leu Ala Ser Phe  
195 200 205  
Ser Thr Gln Trp Ser Leu Asp Arg Ser Arg Thr Pro Arg Gly Leu Asp  
210 215 220  
Asp Glu Leu Asp Thr Gly Asp Ala Lys Phe Phe Gln Val Ile Glu Gln  
225 230 235 240  
Leu Asn Ser Gln Lys Gln Trp Lys Gln Ser Lys Asp Phe Asn Pro Leu  
245 250 255  
Thr Leu Tyr Phe Arg Glu Lys Glu Met Glu Lys Glu Tyr Arg Leu Ser  
260 265 270  
Ala Ile Pro Ala Phe Lys Tyr Tyr Glu Ala Cys Thr Phe Leu Val Phe  
275 280 285  
Leu Ser Asn Phe Ile Ile Gln Met Leu Val Thr Asn Arg Pro Pro Ala  
290 295 300  
Leu Ala Ile Thr Tyr Ser Ile Thr Phe Leu Leu Phe Leu Leu Ile Leu  
305 310 315 320  
Phe Val Cys Phe Ser Glu Asp Leu Met Arg Cys Val Leu Lys Gly Pro  
325 330 335  
Lys Met Leu His Trp Leu Pro Ala Leu Ser Gly Leu Val Ala Thr Arg  
340 345 350  
Pro Gly Leu Arg Ile Ala Leu Gly Thr Ala Thr Ile Leu Leu Val Phe  
355 360 365  
Ala Met Ala Ile Thr Ser Leu Phe Phe Phe Pro Thr Ser Ser Asp Cys  
370 375 380  
Pro Phe Gln Ala Pro Asn Val Ser Ser Met Ile Ser Asn Leu Ser Trp  
385 390 395 400  
Glu Leu Pro Gly Ser Leu Pro Leu Ile Ser Val Pro Val Ser Val Pro  
405 410 415



Thr Cys Pro

<210> 4323

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4323

Met	Ala	His	Val	Ala	Glu	Lys	Asp	Gly	Leu	Asp	Trp	Ala	Ser	Gly	Cys
1				5					10					15	
Ile	Pro	Gly	Leu	Gln	Thr	Gly	Ile	Cys	Leu	Phe	Gly	Ser	Gln	Leu	Cys
			20					25						30	
Phe	His	Leu	Ser	Trp	Leu	Tyr	Ser	Trp	Ala	Ser	Gln	Cys	Gly	Pro	Thr
			35					40						45	
Ala	Pro	Val	Ile	Asp	Lys	Lys	Ser	Ser	Pro	Leu	Leu	Thr	Glu	Leu	Leu
			50					55						60	
Asp	Leu	Val	Leu	Ile	Gly	Pro	Asp	Glu	Glu	Gly	Ile	Gln	Pro	Gln	Val
			65					70						75	
Ile	Ile	Val	Ala	Arg	Lys	Met	Glu	Tyr	Thr	Lys	Trp	Thr	Gly	Leu	Ala
				85										90	
															95
Cys	Thr	His	Arg	Asp											
															100

<210> 4324

<211> 224

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4324

Met	Val	Cys	Leu	Val	Leu	Leu	Asn	His	Pro	Lys	Glu	Leu	Asn	Met	Ala
1				5					10					15	
Lys	Gln	Met	Val	Lys	Ala	Ser	Arg	Leu	Phe	Tyr	Phe	Gly	Ser	Ala	Arg
			20					25					30		
Ser	Pro	Leu	Thr	Cys	Asp	Leu	Cys	Cys	Pro	Ser	Arg	Trp	Ser	Gln	Ala
			35					40					45		
Ile	Gln	Pro	Cys	Pro	Leu	Pro	Leu	Cys	Pro	Asp	Ala	Ser	Gly	Ala	Arg
			50					55					60		
Leu	Phe	Arg	Leu	Ala	Leu	Thr	Ser	Gly	Arg	Gln	Ser	Thr	Leu	Arg	Asp
			65					70					75		80
Val	Ala	Asn	Thr	Thr	Pro	Pro	Val	Leu	Ser	Val	Gly	Arg	Ala	Glu	Ala
								85					90		95
Ala	Trp	Glu	Ala	Arg	Gly	Asp	Arg	Lys	Arg	Ala	Leu	Ser	Ser	Ser	Glu
								100					105		110
Lys	Arg	Ile	Cys	His	Gln	Ile	Glu	Phe	Arg	Pro	Leu	Ser	Leu	Phe	Gly
								115					120		125
Arg	Met	Val	Gln	Ile	Gln	Ile	Lys	Val	Val	Thr	Gln	Pro	Glu	Met	Ser
								130					135		140
Gly	Lys	Ala	Phe	Cys	Arg	Glu	Asn	Val	Pro	Pro	Pro	Ala	Ile	Cys	Ser
								145					150		155
Gln	Val	Cys	Ala	Thr	Arg	Gln	Pro	Ser	Arg	Asn	Ile	Val	Trp	Ile	Leu
								165					170		175
Lys	Met	Cys	Leu	Phe	Leu	Phe	Leu	Asn	His	Phe	Ile	Thr	Tyr	Phe	Leu
								180					185		190
Ile	Tyr	Phe	Val	Met	Ser	Cys	Phe	Glu	Val	Leu	Leu	Leu	Ser	Leu	Leu
								195					200		205

Ser Phe Pro Leu Phe Leu Ser Leu Ile Tyr Phe Val Lys Val Val His  
 210 215 220

<210> 4325

<211> 1192

<212> PRT

<213> Homo sapiens

<400> 4325

Met Leu Asp Gly Ala Arg Leu Glu Gly Asp Leu Ser Leu Ala His Glu  
 1 5 10 15  
 Asp Val Ala Gly Lys Asp Ser Lys Phe Gln Gly Pro Lys Leu Ser Thr  
 20 25 30  
 Ser Gly Phe Glu Trp Ser Ser Lys Lys Val Ser Met Ser Ser Ser Glu  
 35 40 45  
 Ile Glu Gly Asn Val Thr Phe His Glu Lys Thr Ser Ala Phe Pro Ile  
 50 55 60  
 Val Glu Ser Val Val His Glu Gly Asp Leu His Asp Pro Ser Arg Asp  
 65 70 75 80  
 Gly Asn Leu Gly Leu Ala Val Gly Glu Val Gly Met Asp Ser Lys Phe  
 85 90 95  
 Lys Lys Leu His Phe Lys Val Pro Lys Val Ser Phe Ser Ser Thr Lys  
 100 105 110  
 Thr Pro Lys Asp Ser Leu Val Pro Gly Ala Lys Ser Ser Ile Gly Leu  
 115 120 125  
 Ser Thr Ile Pro Leu Ser Ser Ser Glu Cys Ser Ser Phe Glu Leu Gln  
 130 135 140  
 Gln Val Ser Ala Cys Ser Glu Pro Ser Met Gln Met Pro Lys Val Gly

145                      150                      155                      160  
Phe Ala Gly Phe Pro Ser Ser Arg Leu Asp Leu Thr Gly Pro His Phe  
                         165                      170                      175  
Glu Ser Ser Ile Leu Ser Pro Cys Glu Asp Val Thr Leu Thr Lys Tyr  
                         180                      185                      190  
Gln Val Thr Val Pro Arg Ala Ala Leu Ala Pro Glu Leu Ala Leu Glu  
                         195                      200                      205  
Ile Pro Ser Gly Ser Gln Ala Asp Ile Pro Leu Pro Lys Thr Glu Cys  
                         210                      215                      220  
Ser Thr Asp Leu Gln Pro Pro Glu Gly Val Pro Thr Ser Gln Ala Glu  
225                      230                      235                      240  
Ser His Ser Gly Pro Leu Asn Ser Met Ile Pro Val Ser Leu Gly Gln  
                         245                      250                      255  
Val Ser Phe Pro Lys Phe Tyr Lys Pro Lys Phe Val Phe Ser Val Pro  
                         260                      265                      270  
Gln Met Ala Val Pro Glu Gly Asp Leu His Ala Ala Val Gly Ala Pro  
                         275                      280                      285  
Val Met Ser Pro Leu Ser Pro Gly Glu Arg Val Gln Cys Pro Leu Pro  
                         290                      295                      300  
Ser Thr Gln Leu Pro Ser Pro Gly Thr Cys Val Ser Gln Gly Pro Glu  
305                      310                      315                      320  
Glu Leu Val Ala Ser Leu Gln Thr Ser Val Val Ala Pro Gly Glu Ala  
                         325                      330                      335  
Pro Ser Glu Asp Ala Asp His Glu Gly Lys Gly Ser Pro Leu Lys Met  
                         340                      345                      350  
Pro Lys Ile Lys Leu Pro Ser Phe Arg Trp Ser Pro Lys Lys Glu Thr  
                         355                      360                      365  
Gly Pro Lys Val Asp Pro Glu Cys Ser Val Glu Asp Ser Lys Leu Ser  
                         370                      375                      380

Leu Val Leu Asp Lys Asp Glu Val Ala Pro Gln Ser Ala Ile His Met  
 385 390 395 400  
 Asp Leu Pro Pro Glu Arg Asp Gly Glu Lys Gly Arg Ser Thr Lys Pro  
 405 410 415  
 Gly Phe Ala Met Pro Lys Leu Ala Leu Pro Lys Met Lys Ala Ser Lys  
 420 425 430  
 Ser Gly Val Ser Leu Pro Gln Arg Gly Val Asp Pro Ser Leu Ser Ser  
 435 440 445  
 Ala Thr Ala Gly Gly Ser Phe Gln Asp Thr Glu Lys Ala Ser Ser Asp  
 450 455 460  
 Gly Gly Arg Gly Gly Leu Gly Ala Thr Ala Ser Ala Thr Gly Ser Glu  
 465 470 475 480  
 Gly Val Asn Leu His Arg Pro Gln Val His Ile Pro Ser Leu Gly Phe  
 485 490 495  
 Ala Lys Pro Asp Leu Arg Ser Ser Lys Ala Lys Val Glu Val Ser Gln  
 500 505 510  
 Pro Glu Ala Asp Leu Pro Leu Pro Lys His Asp Leu Ser Thr Glu Gly  
 515 520 525  
 Asp Ser Arg Gly Cys Gly Leu Glu Asp Val Pro Val Ser Gln Pro Cys  
 530 535 540  
 Gly Glu Gly Ile Ala Pro Thr Pro Glu Asp Pro Leu Gln Pro Ser Cys  
 545 550 555 560  
 Arg Lys Pro Asp Ala Glu Val Leu Thr Val Glu Ser Pro Glu Glu Glu  
 565 570 575  
 Ala Met Thr Lys Asp Ser Gln Glu Ser Trp Phe Lys Met Pro Lys Phe  
 580 585 590  
 Arg Met Pro Ser Leu Arg Arg Ser Phe Arg Asp Arg Gly Gly Ala Gly  
 595 600 605  
 Lys Leu Glu Val Ala Gln Thr Gln Ala Pro Ala Ala Thr Gly Gly Glu

610 615 620  
Ala Ala Ala Lys Val Lys Glu Phe Leu Val Ser Gly Ser Asn Val Glu  
625 630 635 640  
Ala Ala Met Ser Leu Gln Leu Pro Glu Ala Asp Ala Glu Val Thr Ala  
645 650 655  
Ser Glu Ser Lys Ser Ser Thr Asp Ile Leu Arg Cys Asp Leu Asp Ser  
660 665 670  
Thr Gly Leu Lys Leu His Leu Ser Thr Ala Gly Met Thr Gly Asp Glu  
675 680 685  
Leu Ser Thr Ser Glu Val Arg Ile His Pro Ser Lys Gly Pro Leu Pro  
690 695 700  
Phe Gln Met Pro Gly Met Arg Leu Pro Glu Thr Gln Val Leu Pro Gly  
705 710 715 720  
Glu Ile Asp Glu Thr Pro Leu Ser Lys Pro Gly His Asp Leu Ala Ser  
725 730 735  
Met Glu Asp Lys Thr Glu Lys Trp Ser Ser Gln Pro Glu Gly Pro Leu  
740 745 750  
Lys Leu Lys Ala Ser Ser Thr Asp Met Pro Ser Gln Ile Ser Val Val  
755 760 765  
Asn Val Asp Gln Leu Trp Glu Asp Ser Val Leu Thr Val Lys Phe Pro  
770 775 780  
Lys Leu Met Val Pro Arg Phe Ser Phe Ala Ala Pro Ser Ser Glu Asp  
785 790 795 800  
Asp Val Phe Ile Pro Thr Val Arg Glu Val Gln Cys Pro Glu Ala Asn  
805 810 815  
Ile Asp Thr Ala Leu Cys Lys Glu Ser Pro Gly Leu Trp Gly Ala Ser  
820 825 830  
Ile Leu Lys Ala Gly Ala Gly Val Pro Gly Glu Gln Pro Val Asp Leu  
835 840 845

Asn Leu Pro Leu Glu Ala Pro Pro Ile Ser Lys Val Arg Val His Ile  
850 855 860  
Gln Gly Ala Gln Val Glu Ser Gln Glu Val Thr Ile His Ser Ile Val  
865 870 875 880  
Thr Pro Glu Phe Val Asp Leu Ser Val Pro Arg Thr Phe Ser Thr Gln  
885 890 895  
Ile Val Arg Glu Ser Glu Ile Pro Thr Ser Glu Ile Gln Thr Pro Ser  
900 905 910  
Tyr Gly Phe Ser Leu Leu Lys Val Lys Ile Pro Glu Pro His Thr Gln  
915 920 925  
Ala Arg Val Tyr Thr Thr Met Thr Gln His Ser Arg Thr Gln Glu Gly  
930 935 940  
Thr Glu Glu Ala Pro Ile Gln Ala Thr Pro Gly Val Asp Ser Ile Ser  
945 950 955 960  
Gly Asp Leu Gln Pro Asp Thr Gly Glu Pro Phe Glu Met Ile Ser Ser  
965 970 975  
Ser Val Asn Val Leu Gly Gln Gln Thr Leu Thr Phe Glu Val Pro Ser  
980 985 990  
Gly His Gln Leu Ala Asp Ser Cys Ser Asp Glu Glu Pro Ala Glu Ile  
995 1000 1005  
Leu Glu Phe Pro Pro Asp Asp Ser Gln Glu Ala Thr Thr Pro Leu Ala  
1010 1015 1020  
Asp Glu Gly Arg Ala Pro Lys Asp Lys Pro Glu Ser Lys Lys Ser Gly  
1025 1030 1035 1040  
Leu Leu Trp Phe Trp Leu Pro Asn Ile Gly Phe Ser Ser Ser Val Asp  
1045 1050 1055  
Glu Thr Gly Val Asp Ser Lys Asn Asp Val Gln Arg Ser Ala Pro Ile  
1060 1065 1070  
Gln Thr Gln Pro Glu Ala Arg Pro Glu Ala Glu Leu Pro Lys Lys Gln

出証特 2 0 0 4 - 3 0 5 9 6 6 0



Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr Thr Glu Glu Tyr Arg His  
50 55 60  
Met Pro Leu Leu Lys Leu Trp Val Gly Pro Val Pro Met Val Ala Leu  
65 70 75 80  
Tyr Asn Ala Glu Asn Val Glu Val Ile Leu Thr Ser Ser Lys Gln Ile  
85 90 95  
Asp Lys Ser Ser Met Tyr Lys Phe Leu Glu Pro Trp Leu Gly Leu Gly  
100 105 110  
Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg Ser Arg Arg Lys Met Leu  
115 120 125  
Thr Pro Thr Phe His Phe Thr Ile Leu Glu Asp Phe Leu Asp Ile Met  
130 135 140  
Asn Glu Gln Ala Asn Ile Leu Val Lys Lys Leu Glu Lys His Ile Asn  
145 150 155 160  
Gln Glu Ala Phe Asn Cys Phe Phe Tyr Ile Thr Leu Cys Ala Leu Asp  
165 170 175  
Ile Ile Cys Glu Thr Ala Met Gly Lys Asn Ile Gly Ala Gln Ser Asn  
180 185 190  
Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr Arg Met Ser Glu Met Ile  
195 200 205  
Phe Arg Arg Ile Lys Met Pro Trp Leu Trp Leu Asp Leu Trp Tyr Leu  
210 215 220  
Met Phe Lys Glu Gly Trp Glu His Lys Lys Ser Leu Lys Ile Leu His  
225 230 235 240  
Thr Phe Thr Asn Ser Val Ile Ala Glu Arg Ala Asn Glu Met Asn Ala  
245 250 255  
Asn Glu Asp Cys Arg Gly Asp Gly Arg Gly Ser Ala Pro Ser Lys Asn  
260 265 270  
Lys Arg Arg Ala Phe Leu Asp Leu Leu Leu Ser Val Thr Asp Asp Glu

275	280	285
Gly Asn Arg Leu Ser His Glu Asp Ile Arg Glu Glu Val Asp Thr Phe		
290	295	300
Met Phe Glu Gly His Asp Thr Thr Ala Ala Ala Ile Asn Trp Ser Leu		
305	310	315
Tyr Leu Leu Gly Ser Asn Pro Glu Val Gln Lys Lys Val Asp His Glu		
325	330	335
Leu Asp Asp Val Phe Gly Lys Ser Asp Arg Pro Ala Thr Val Glu Asp		
340	345	350
Leu Lys Lys Leu Arg Tyr Leu Glu Cys Val Ile Lys Glu Thr Leu Arg		
355	360	365
Leu Phe Pro Ser Val Pro Leu Phe Ala Arg Ser Val Ser Glu Asp Cys		
370	375	380
Glu Val Ala Gly Tyr Arg Val Leu Lys Gly Thr Glu Ala Val Ile Ile		
385	390	395
Pro Tyr Ala Leu His Arg Asp Pro Arg Tyr Phe Pro Asn Pro Glu Glu		
405	410	415
Phe Gln Pro Glu Arg Phe Phe Pro Glu Asn Ala Gln Gly Arg His Pro		
420	425	430
Tyr Ala Tyr Val Pro Phe Ser Ala Gly Pro Arg Asn Cys Ile Gly Gln		
435	440	445
Lys Phe Ala Val Met Glu Glu Lys Thr Ile Leu Ser Cys Ile Leu Arg		
450	455	460
His Phe Trp Ile Glu Ser Asn Gln Lys Arg Glu Glu Leu Gly Leu Glu		
465	470	475
Gly Gln Leu Ile Leu Arg Pro Ser Asn Gly Ile Trp Ile Lys Leu Lys		
485	490	495
Arg Arg Asn Ala Asp Glu Arg		
500		

&lt;210&gt; 4327

&lt;211&gt; 491

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4327

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Met Ser Arg Val Ala Lys Tyr Arg Arg Gln Val Ser Glu Asp Pro Asp
  1             5             10             15
Ile Asp Ser Leu Leu Glu Thr Leu Ser Pro Glu Glu Met Glu Glu Leu
      20             25             30
Glu Lys Glu Leu Asp Val Val Asp Pro Asp Gly Ser Val Pro Val Gly
      35             40             45
Leu Arg Gln Arg Asn Gln Thr Glu Lys Gln Ser Thr Gly Val Tyr Asn
      50             55             60
Arg Glu Ala Met Leu Asn Phe Cys Glu Lys Glu Thr Lys Lys Glu Glu
      65             70             75             80
Glu Lys Lys Gly Ser Asp Arg Asn Thr Gly Leu Ser Arg Asp Lys Asp
      85             90             95
Lys Lys Arg Glu Glu Met Lys Glu Val Ala Lys Lys Glu Asp Asp Glu
      100            105            110
Lys Val Lys Gly Glu Arg Arg Asn Thr Asp Thr Arg Lys Glu Gly Glu
      115            120            125
Lys Met Lys Arg Ala Gly Gly Asn Thr Asp Met Lys Lys Glu Asp Glu
      130            135            140
Lys Val Lys Arg Gly Thr Gly Asn Thr Asp Thr Lys Lys Asp Asp Glu
      145            150            155            160
Lys Val Lys Lys Asn Glu Pro Leu His Glu Lys Glu Ala Lys Asp Asp

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	165		170		175
Ser Lys Thr Lys Thr Pro Glu Arg Gln Met Pro Ser Gly Pro Thr Lys					
	180		185		190
Pro Ser Glu Gly Pro Ala Lys Val Glu Glu Glu Ala Ala Pro Ser Ile					
	195		200		205
Phe Asp Glu Pro Leu Glu Arg Val Lys Asn Asn Asp Pro Glu Met Thr					
	210		215		220
Glu Val Asn Val Asn Asn Ser Asp Cys Ile Thr Asn Glu Ile Leu Val					
	225		230		235
					240
Arg Phe Thr Glu Ala Leu Glu Phe Asn Thr Val Val Lys Leu Phe Ala					
	245		250		255
Leu Ala Asn Thr Arg Ala Asp Asp His Val Ala Phe Ala Ile Ala Ile					
	260		265		270
Met Leu Lys Ala Asn Lys Thr Ile Thr Ser Leu Asn Leu Asp Ser Asn					
	275		280		285
His Ile Thr Gly Lys Gly Ile Leu Ala Ile Phe Arg Ala Leu Leu Gln					
	290		295		300
Asn Asn Thr Leu Thr Glu Leu Arg Phe His Asn Gln Arg His Ile Cys					
	305		310		315
					320
Gly Gly Lys Thr Glu Met Glu Ile Ala Lys Leu Leu Lys Glu Asn Thr					
	325		330		335
Thr Leu Leu Lys Leu Gly Tyr His Phe Glu Leu Ala Gly Pro Arg Met					
	340		345		350
Thr Val Thr Asn Leu Leu Ser Arg Asn Met Asp Lys Gln Arg Gln Lys					
	355		360		365
Arg Leu Gln Glu Gln Arg Gln Ala Gln Glu Ala Lys Gly Glu Lys Lys					
	370		375		380
Asp Leu Leu Glu Val Pro Lys Ala Gly Ala Val Ala Lys Gly Ser Pro					
	385		390		395
					400

Lys Pro Ser Pro Gln Pro Ser Pro Lys Pro Ser Pro Lys Asn Ser Pro

405

410

415

Lys Lys Gly Gly Ala Pro Ala Ala Pro Pro Pro Pro Pro Pro Pro Leu

420

425

430

Ala Pro Pro Leu Ile Met Glu Asn Leu Lys Asn Ser Leu Ser Pro Ala

435

440

445

Thr Gln Arg Lys Met Gly Asp Lys Val Leu Pro Ala Gln Glu Lys Asn

450

455

460

Ser Arg Asp Gln Leu Leu Ala Ala Ile Arg Ser Ser Asn Leu Lys Gln

465

470

475

480

Leu Lys Lys Val Glu Val Pro Lys Leu Leu Gln

485

490

&lt;210&gt; 4328

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4328

Met Arg Leu Asn Ile Leu Pro Arg Arg Arg Arg Arg Gly Arg Pro Arg

1

5

10

15

Pro Gly Pro Gly Asp Arg Gly Ala Asp Pro Gly Thr Glu Pro Gly Phe

20

25

30

Val Arg Glu Ala Asp Ala Pro Arg Ala Pro Pro Pro Lys His Ser His

35

40

45

Pro Met Leu Arg Arg Ala Ser Gly Ser Pro Trp Ala Pro Arg Gly Glu

50

55

60

Pro Gly Ala Pro Gly Gly Ser Ser Gly Glu Leu Pro Ala Gly Ala Gly

65                      70                      75                      80  
 Arg Cys Trp Trp Glu Ala Arg Cys Thr Trp Arg Pro Gly Met Ser Gly  
                             85                      90                      95  
 Arg Pro Arg Ser Arg Cys Ile Arg Pro Leu Pro Ala Arg Pro Asp Val  
                             100                      105                      110  
 Pro Ala Gly Ser  
                             115

<210> 4329

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4329

Met Ala Pro Pro Ala Pro Gly Pro Ala Ser Gly Gly Ser Gly Glu Val  
   1                      5                      10                      15  
 Asp Glu Leu Phe Asp Val Lys Asn Ala Phe Tyr Ile Gly Ser Tyr Gln  
                             20                      25                      30  
 Gln Cys Ile Asn Glu Ala Gln Arg Val Lys Leu Ser Ser Pro Glu Arg  
                             35                      40                      45  
 Asp Val Glu Arg Asp Val Phe Leu Tyr Arg Ala Tyr Leu Ala Gln Arg  
                             50                      55                      60  
 Lys Phe Gly Val Val Leu Asp Glu Ile Lys Pro Ser Ser Ala Pro Glu  
   65                      70                      75                      80  
 Leu Gln Ala Val Arg Met Phe Ala Asp Tyr Leu Ala His Glu Ser Arg  
                             85                      90                      95  
 Ser Thr Ala Met Thr Val Gln Ile Leu Leu Lys Leu Asp Arg Leu Asp  
                             100                      105                      110

Leu Ala Arg Lys Glu Leu Lys Arg Met Gln Asp Leu Asp Glu Asp Ala  
                   115                                  120                                  125  
 Thr Leu Thr Gln Leu Ala Thr Ala Trp Val Ser Leu Ala Thr Gly Gly  
                   130                                  135                                  140  
 Glu Lys Leu Gln Asp Ala Tyr Tyr Ile Phe Gln Glu Met Ala Asp Lys  
 145                                  150                                  155                                  160  
 Cys Ser Pro Thr Leu Leu Leu Leu Asn Gly Gln Ala Ala Cys His Met  
                                   165                                  170                                  175  
 Ala Gln Gly Arg Trp Glu Ala Ala Glu Gly Leu Leu Gln Glu Ala Leu  
                                   180                                  185                                  190  
 Asp Lys Asp Ser Gly Tyr Pro Glu Thr Leu Val Asn Leu Ile Val Leu  
                                   195                                  200                                  205  
 Ser Gln His Leu Gly Lys Pro Pro Glu Val Thr Asn Arg Tyr Leu Ser  
                                   210                                  215                                  220  
 Gln Leu Lys Asp Ala His Arg Ser His Pro Phe Ile Lys Glu Tyr Gln  
 225                                  230                                  235                                  240  
 Ala Lys Glu Asn Asp Phe Asp Arg Leu Val Leu Gln Tyr Ala Pro Ser  
                                   245                                  250                                  255  
 Ala

<210> 4330

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4330

Met Asn Asn Ala Ala Ile Ile Asn Ile His Thr Ser Phe Leu Trp Thr

1 5 10 15  
Trp Phe His Phe Leu Gly Ile Cys Pro Ala Val Glu Phe Leu Gly His  
20 25 30  
Leu Leu Thr Met Ile Ser Leu Leu Glu Lys Leu Pro Asp Phe Leu Leu  
35 40 45  
Ile Phe Phe Phe Phe Leu Leu Leu Cys Ser Val Lys Lys Pro Phe Asn  
50 55 60  
Ala Tyr Glu Leu Lys Pro Cys Lys Glu Ser Asp His Leu Gly Leu Asp  
65 70 75 80  
Arg Lys Leu Leu Asp Phe Lys Cys Ile Thr Leu Arg Ile Phe Cys Asp  
85 90 95  
Ser Leu Ala Ser Pro Leu Ser Ser Leu Phe Phe Leu Arg Ile His Glu  
100 105 110  
Leu Ala Pro Cys Leu His Ile  
115

&lt;210&gt; 4331

&lt;211&gt; 934

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4331

Met Leu Thr Leu Glu Glu Phe Arg Glu Leu Arg Glu Gln Pro Ser Asp  
1 5 10 15  
Pro Gln Ala Glu Gln Glu Leu Ile Asn Ser Ile Glu Gln Val Tyr Phe  
20 25 30  
Ser Val Asp Ser Phe Asp Ile Val Lys Tyr Glu Leu Glu Lys Leu Pro  
35 40 45



Pro Val Leu Asn Leu Gln Glu Leu Glu Ala Tyr Arg Asp Lys Leu Lys  
50 55 60  
Gln His Gln Ala Ala Val Ser Lys Lys Val Ala Asp Leu Ile Leu Glu  
65 70 75 80  
Lys Gln Pro Ala Tyr Val Lys Glu Leu Glu Arg Val Thr Ser Leu Gln  
85 90 95  
Thr Gly Leu Gln Leu Ala Ala Val Ile Cys Thr Asn Gly Arg Arg His  
100 105 110  
Leu Asn Ile Ala Lys Glu Gly Phe Thr Gln Ala Ser Leu Gly Leu Leu  
115 120 125  
Ala Asn Gln Arg Lys Arg Gln Leu Leu Ile Gly Leu Leu Lys Ser Leu  
130 135 140  
Arg Thr Ile Lys Thr Leu Gln Arg Thr Asp Val Arg Leu Ser Glu Met  
145 150 155 160  
Leu Glu Glu Glu Asp Tyr Pro Gly Ala Ile Gln Leu Cys Leu Glu Cys  
165 170 175  
Gln Lys Ala Ala Ser Thr Phe Lys His Tyr Ser Cys Ile Ser Glu Leu  
180 185 190  
Asn Ser Lys Leu Gln Asp Thr Leu Glu Gln Ile Glu Glu Gln Leu Asp  
195 200 205  
Val Ala Leu Ser Lys Ile Cys Lys Asn Phe Asp Ile Asn His Tyr Thr  
210 215 220  
Lys Val Gln Gln Ala Tyr Arg Leu Leu Gly Lys Thr Gln Thr Ala Met  
225 230 235 240  
Asp Gln Leu His Met His Phe Thr Gln Ala Ile His Asn Thr Val Phe  
245 250 255  
Gln Val Val Leu Gly Tyr Val Glu Leu Cys Ala Gly Asn Thr Asp Thr  
260 265 270  
Lys Phe Gln Lys Leu Gln Tyr Lys Asp Leu Cys Thr His Val Thr Pro

275	280	285
Asp Ser Tyr Ile Pro Cys Leu Ala Asp Leu Cys Lys Ala Leu Trp Glu		
290	295	300
Val Met Leu Ser Tyr Tyr Arg Thr Met Glu Trp His Glu Lys His Asp		
305	310	315
Asn Glu Asp Thr Ala Ser Ala Ser Glu Gly Ser Asn Met Ile Gly Thr		
325	330	335
Glu Glu Thr Asn Phe Asp Arg Gly Tyr Ile Lys Lys Lys Leu Glu His		
340	345	350
Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr		
355	360	365
Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe		
370	375	380
Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe Cys		
385	390	395
Gly Ser Lys Ser Glu Val Leu Gln Glu Ser Ile Arg Lys Gln Ser Val		
405	410	415
Asn Tyr Phe Lys Asn Tyr His Arg Thr Arg Leu Asp Glu Leu Arg Met		
420	425	430
Phe Leu Glu Asn Glu Thr Trp Glu Leu Cys Pro Val Lys Ser Asn Phe		
435	440	445
Ser Ile Leu Gln Leu His Glu Phe Lys Phe Met Glu Gln Ser Arg Ser		
450	455	460
Pro Ser Val Ser Pro Ser Lys Gln Pro Val Ser Thr Ser Ser Lys Thr		
465	470	475
Val Thr Leu Phe Glu Gln Tyr Cys Ser Gly Gly Asn Pro Phe Glu Ile		
485	490	495
Gln Ala Asn His Lys Asp Glu Glu Thr Glu Asp Val Leu Ala Ser Asn		
500	505	510

Gly Tyr Glu Ser Asp Glu Gln Glu Lys Ser Ala Tyr Gln Glu Tyr Asp  
515 520 525

Ser Asp Ser Asp Val Pro Glu Glu Leu Lys Arg Asp Tyr Val Asp Glu  
530 535 540

Gln Thr Gly Asp Gly Pro Val Lys Ser Val Ser Arg Glu Thr Leu Lys  
545 550 555 560

Ser Arg Lys Lys Ser Asp Tyr Ser Leu Asn Lys Val Asn Ala Pro Ile  
565 570 575

Leu Thr Asn Thr Thr Leu Asn Val Ile Arg Leu Val Gly Lys Tyr Met  
580 585 590

Gln Met Met Asn Ile Leu Lys Pro Ile Ala Phe Asp Val Ile His Phe  
595 600 605

Met Ser Gln Leu Phe Asp Tyr Tyr Leu Tyr Ala Ile Tyr Thr Phe Phe  
610 615 620

Gly Arg Asn Asp Ser Leu Glu Ser Thr Gly Leu Gly Leu Ser Ser Ser  
625 630 635 640

Arg Leu Arg Thr Thr Leu Asn Arg Ile Gln Glu Ser Leu Ile Asp Leu  
645 650 655

Glu Val Ser Ala Asp Pro Thr Ala Thr Leu Thr Ala Ala Glu Glu Arg  
660 665 670

Lys Glu Lys Val Pro Ser Pro His Leu Ser His Leu Val Val Leu Thr  
675 680 685

Ser Gly Asp Thr Leu Tyr Gly Leu Ala Glu Arg Val Val Ala Thr Glu  
690 695 700

Ser Leu Val Phe Leu Ala Glu Gln Phe Glu Phe Leu Gln Pro His Leu  
705 710 715 720

Asp Ala Val Met Pro Ala Val Lys Lys Pro Phe Leu Gln Gln Phe Tyr  
725 730 735

Ser Gln Thr Val Ser Thr Ala Ser Glu Leu Arg Lys Pro Ile Tyr Trp

740 745 750  
Ile Val Ala Gly Lys Ala Leu Asp Tyr Glu Gln Met Leu Leu Leu Met  
755 760 765  
Ala Asn Val Lys Trp Asp Val Lys Glu Ile Met Ser Gln His Asn Ile  
770 775 780  
Tyr Val Asp Ala Leu Leu Lys Glu Phe Glu Gln Phe Asn Arg Arg Leu  
785 790 795 800  
Asn Glu Val Ser Lys Arg Val Arg Ile Pro Leu Pro Val Ser Asn Ile  
805 810 815  
Leu Trp Glu His Cys Ile Arg Leu Ala Asn Arg Thr Ile Val Glu Gly  
820 825 830  
Tyr Ala Asn Val Lys Lys Cys Ser Asn Glu Gly Arg Ala Leu Met Gln  
835 840 845  
Leu Asp Phe Gln Gln Phe Leu Met Lys Leu Glu Lys Leu Thr Asp Ile  
850 855 860  
Arg Pro Ile Pro Asp Lys Glu Phe Val Glu Thr Tyr Ile Lys Ala Tyr  
865 870 875 880  
Tyr Leu Thr Glu Asn Asp Met Glu Arg Trp Ile Lys Glu His Arg Glu  
885 890 895  
Tyr Ser Thr Lys Gln Leu Thr Asn Leu Val Asn Val Cys Leu Gly Ser  
900 905 910  
His Ile Asn Lys Lys Ala Arg Gln Lys Leu Leu Ala Ala Ile Asp Asp  
915 920 925  
Ile Asp Arg Pro Lys Arg  
930

&lt;210&gt; 4332

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4332

Met Glu Ala Val Arg Thr Leu Gly Ser Ser Val Pro Leu Leu Ser Val

1 5 10 15

Gly Pro Leu Arg Asn Pro Glu Phe Leu Val Gly Leu Leu Leu Ser

20 25 30

His Ile Pro Pro Tyr Pro Gly Met Cys Arg Phe Leu Leu Asp Leu Ser

35 40 45

Thr Gly Pro Cys Val Gln Ser Gln Phe Ile Leu Val Asp Pro His Phe

50 55 60

His Pro Arg Ile His Phe His His Ser Gln Ser Leu Ser Ser Ile Met

65 70 75 80

Arg Arg Ser Gly Met Gln Ala Phe Cys Val Phe Ile Pro Ala Thr Ala

85 90 95

Leu Thr Leu Met Glu Arg Ala Gly Trp Gly Gly

100 105

&lt;210&gt; 4333

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4333

Met Arg Leu Ala Asn Phe Ser Tyr Phe Trp Ile Glu Thr Gly Phe His

1 5 10 15

Arg Val Ala Gln Ala Gly Leu Glu Leu Leu Gly Ser Ser Asp Pro Pro

20 25 30  
 Thr Leu Ala Ser Gln Arg Val Gly Ile Thr Gly Val Ser His Cys Ser  
 35 40 45  
 Gln Leu Leu Gly Arg Leu Gly His Glu Asn Cys Phe Asn Pro Glu Gly  
 50 55 60  
 Gly Val Cys Ser Glu Pro Arg Ser Cys His Cys Thr Pro Ala Trp Ala  
 65 70 75 80  
 Thr Glu Gly Asp Ser Val Ser Lys Lys Lys Lys Lys Val Lys Glu Gly  
 85 90 95  
 Phe Pro Glu Trp Pro Leu Asp  
 100

&lt;210&gt; 4334

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4334

Met Val Val Val Pro Ile Met Glu Asn Leu Leu Lys Ile Asn Cys Asn  
 1 5 10 15  
 Gly Leu Arg Thr Pro Pro Pro His Val Arg Ala Tyr Glu Gly Ile Phe  
 20 25 30  
 Phe Leu Arg Gln Lys Lys Glu His Cys Arg Arg Pro Ser Asp Phe Phe  
 35 40 45  
 Phe Pro Leu Phe Leu Phe Gln Arg Ala His Leu Leu Asp Asn Thr Glu  
 50 55 60  
 Arg Leu Glu Arg Ser Ser Arg Arg Leu Glu Ala Gly Tyr Gln Ile Ala  
 65 70 75 80

Val Glu Thr Gly Lys Asn Ser Glu Ser Glu Gln Ile Val Leu Leu Met

85

90

95

His Ser Ser Leu His Asn Thr

100

<210> 4335

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4335

Met Glu Glu Gly Asn Thr Ser Thr Val Thr Gln Gln Val Arg Gly Arg

1

5

10

15

Thr Arg Thr Lys Pro Arg Ser Leu His Leu Ser Pro Gly Leu Leu Val

20

25

30

Thr Phe Leu Gln Glu Gly Leu Ser Lys Ser Ala Gly Ala Gln Arg Gln

35

40

45

Gly Pro Thr Tyr Pro Cys Arg Asp Thr Glu Arg Thr Lys Thr Lys Pro

50

55

60

Gln Gly Gly Gln Gln Pro Gln Thr Ser His Gly Leu Gly Leu Phe Ser

65

70

75

80

Ile Tyr Leu Gly Arg Phe Ile Lys Ser Thr Phe Phe Arg Glu Leu Arg

85

90

95

Lys Glu Lys Lys Tyr Ala Pro Phe Leu Ser Leu Gly Asp Ser Tyr Ser

100

105

110

Arg Gly Thr

115

&lt;210&gt; 4336

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4336

Met Pro Leu Ala Cys Glu His Pro Val Gly Val Ser Ser Ser Val Gly

1 5 10 15

Asn Ala Gly Arg Ala Gly Val Gly Thr Gln Ala Trp Gly Thr Thr Glu

20 25 30

Arg Thr Gln His Pro Gly Pro Ala Gln His Cys Pro Cys Gly Leu Arg

35 40 45

Val Phe Val Leu Gln Glu Lys Arg Val Val Ser Arg Asn Trp Ala Arg

50 55 60

Gly Thr Cys Gly Pro Arg Val Thr Asn Glu Met Leu Glu Asp Glu Asp

65 70 75 80

Ala Glu Asp His Gly Gly Thr Phe Cys Leu Gly Glu Leu Val Glu Leu

85 90 95

Ala Val Thr Met Glu Asn Lys Ala Glu Gly Lys Arg Ile Val Ser Glu

100 105 110

Lys Pro Thr Arg Ala Arg Asn Gln Gly Ile Glu Gly Ser Pro Gly Gly

115 120 125

Arg Val Thr Arg Ser Pro Pro Thr Gln Val Ala Ile Ser Ser Asp Ser

130 135 140

Ala Arg Lys Gly Ser Trp Glu Pro Trp Ser Arg Pro Val Gly Glu Pro

145 150 155 160

Pro Glu Ala Gly Trp Asp Tyr Ala Gln Trp Lys Gln Glu Arg Glu Gln

165 170 175



Ile Asp Leu Ala Arg Leu Ala Arg His Arg Asp Ala Gln Gly Asp Trp  
                     180                    185                    190  
 Arg Arg Pro Trp Asp Leu Asp Lys Ala Lys Ser Thr Leu Gln Asp Cys  
                     195                    200                    205  
 Ser Gln Leu Arg Gly Glu Gly Pro Ala Arg Ala Gly Ser Arg Arg Gly  
                     210                    215                    220  
 Glu Pro Thr Pro Thr Ser Ser Leu Pro Ser Leu Ala Leu Phe Ile Phe  
 225                    230                    235                    240  
 His Pro Leu Val Leu Ser Phe Leu Cys Leu Leu Val Ser Tyr Phe Gln  
                     245                    250                    255  
 Ser

<210> 4337

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4337

Met Pro Ser Arg Gln Leu Glu Asp Pro Gly Ala Gly Thr Pro Ser Pro  
           1                    5                    10                    15  
 Val Arg Leu His Ala Leu Ala Gly Phe Gln Gln Arg Ala Leu Cys His  
                     20                    25                    30  
 Ala Leu Thr Phe Pro Ser Leu Gln Arg Leu Val Tyr Ser Met Cys Ser  
                     35                    40                    45  
 Leu Cys Gln Glu Glu Asn Glu Asp Met Val Pro Asp Ala Leu Gln Gln  
                     50                    55                    60  
 Asn Pro Gly Ala Phe Arg Leu Ala Pro Ala Leu Pro Ala Arg Pro His

65                      70                      75                      80  
 Arg Gly Leu Ser Thr Phe Pro Gly Ala Glu His Cys Leu Arg Ala Ser  
                             85                      90                      95  
 Pro Lys Thr Thr Leu Ser Gly Gly Phe Phe Val Ala Val Ile Glu Arg  
                             100                      105                      110  
 Val Glu Met Pro Thr  
                             115

<210> 4338

<211> 232

<212> PRT

<213> Homo sapiens

<400> 4338

Met Leu Met Glu Thr Ala Ala Arg Thr Ala Arg Ala Thr Ser Cys Pro  
 1                      5                      10                      15  
 Val Gln Gly Asp Gly Gln Glu Val Thr Cys Arg Gly Ala Leu Ala Leu  
                             20                      25                      30  
 Pro Ser Ala Gln Leu Asp Leu Leu Gly Leu Gly Leu Val Glu Pro Gly  
                             35                      40                      45  
 Thr Gln Cys Gly Pro Arg Met Val Cys Gln Ser Arg Arg Cys Arg Lys  
                             50                      55                      60  
 Asn Ala Phe Gln Glu Leu Gln Arg Cys Leu Thr Ala Cys His Ser His  
 65                      70                      75                      80  
 Gly Val Cys Asn Ser Asn His Asn Cys His Cys Ala Pro Gly Trp Ala  
                             85                      90                      95  
 Pro Pro Phe Cys Asp Lys Pro Gly Phe Gly Gly Ser Met Asp Ser Gly  
                             100                      105                      110

Pro Val Gln Ala Glu Asn His Asp Thr Phe Leu Leu Ala Met Leu Leu  
115 120 125  
Ser Val Leu Leu Pro Leu Leu Pro Gly Ala Gly Leu Ala Trp Cys Cys  
130 135 140  
Tyr Arg Leu Pro Gly Ala His Leu Gln Arg Cys Ser Trp Gly Cys Arg  
145 150 155 160  
Arg Asp Pro Ala Cys Ser Gly Pro Lys Asp Gly Pro His Arg Asp His  
165 170 175  
Pro Leu Gly Gly Val His Pro Thr Glu Leu Gly Pro Thr Ala Thr Gly  
180 185 190  
Gln Ser Trp Pro Leu Asp Pro Glu Asn Ser His Glu Pro Ser Ser His  
195 200 205  
Pro Glu Lys Pro Leu Pro Ala Val Ser Pro Asp Pro Gln Asp Gln Val  
210 215 220  
Gln Met Pro Arg Ser Cys Leu Trp  
225 230

&lt;210&gt; 4339

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4339

Met Met Gly Ser Thr His Ile Tyr Asp Met Ser Thr Val Met Ser Arg  
1 5 10 15  
Lys Gly Pro Ala Pro Glu Leu Gln Gly Val Glu Val Ala Leu Ala Pro  
20 25 30  
Glu Glu Leu Glu Leu Asp Pro Met Ala Met Thr Gln Lys Tyr Glu Glu

35	40	45
His Val Arg Glu Gln Gln Ala Gln Val Glu Lys Glu Asp Phe Ser Asp		
50	55	60
Met Val Ala Glu His Ala Ala Lys Gln Lys Val Gly Ala Ser Arg Gly		
65	70	75
Ala Gly Leu Gly Glu Ser Gln Gly Pro Trp Pro Ala Val Phe Ser Gly		
85	90	95
Met Val Pro Ser Ser Gly Glu Ser Glu Gly Gly Leu Cys Leu Leu Leu		
100	105	110
Cys Ala Ser Leu Asp Leu Glu Val Leu Glu Ile Leu Gln Trp Ala Ala		
115	120	125
Leu Phe Lys Asp Asp Glu Gly Glu Glu Leu Ser Gln Val		
130	135	140

&lt;210&gt; 4340

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4340

Met Ser Gln Ile Arg Lys Leu Asp Glu Asp Ala Ser Pro Asn Glu Glu		
1	5	10
Lys Gly Asp Val Pro Lys Asp Thr Leu Asp Asp Leu Phe Pro Asn Glu		
20	25	30
Asp Glu Gln Ser Pro Ala Pro Ser Pro Gly Gly Gly Asp Val Ser Gly		
35	40	45
Gln His Gly Gly Tyr Glu Ile Pro Ala Arg Leu Arg Ile Leu His Asn		
50	55	60

Leu Val Ile Gln Tyr Ala Ser Gln Gly Arg Tyr Glu Val Ala Val Pro  
65 70 75 80  
Leu Cys Lys Gln Ala Leu Glu Asp Leu Glu Lys Thr Ser Gly His Asp  
85 90 95  
His Pro Asp Val Ala Thr Met Leu Asn Ile Leu Ala Leu Val Tyr Arg  
100 105 110  
Asp Gln Asn Lys Tyr Lys Glu Ala Ala His Leu Leu Asn Asp Ala Leu  
115 120 125  
Ala Ile Arg Glu Lys Thr Leu Gly Lys Asp His Pro Ala Val Ala Ala  
130 135 140  
Thr Leu Asn Asn Leu Ala Val Leu Tyr Gly Lys Arg Gly Lys Tyr Lys  
145 150 155 160  
Glu Ala Glu Pro Leu Cys Lys Arg Ala Leu Glu Ile Arg Glu Lys Val  
165 170 175  
Leu Gly Lys Phe His Pro Asp Val Ala Lys Gln Leu Ser Asn Leu Ala  
180 185 190  
Leu Leu Cys Gln Asn Gln Gly Lys Ala Glu Glu Val Glu Tyr Tyr Tyr  
195 200 205  
Arg Arg Ala Leu Glu Ile Tyr Ala Thr Arg Leu Gly Pro Asp Asp Pro  
210 215 220  
Asn Val Ala Lys Thr Lys Asn Asn Leu Ala Ser Cys Tyr Leu Lys Gln  
225 230 235 240  
Gly Lys Tyr Gln Asp Ala Glu Thr Leu Tyr Lys Glu Ile Leu Thr Arg  
245 250 255  
Ala His Glu Lys Glu Phe Gly Ser Val Asn Gly Asp Asn Lys Pro Ile  
260 265 270  
Trp Met His Ala Glu Glu Arg Glu Glu Ser Lys Asp Lys Arg Arg Asp  
275 280 285  
Ser Ala Pro Tyr Gly Glu Tyr Gly Ser Trp Tyr Lys Ala Cys Lys Val

290	295	300
Asp Ser Pro Ile Val	Asn Thr Thr Leu Arg Ser Leu Gly Ala Leu Tyr	
305	310	315
Arg Arg Gln Gly Lys Leu Glu Ala Ala His Thr Leu Glu Asp Cys Ala		320
	325	330
Ser Arg Thr Ala Ser Arg Val Trp Thr Pro Gln Ala Arg Pro Arg Trp		335
	340	345
		350

&lt;210&gt; 4341

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4341

Met Val Arg Trp Val Pro Thr Arg Arg Val Val Val Ile Cys Asp Gly		
1	5	10
Thr Cys Ser His Thr Leu Leu Cys Thr Pro Pro Gly Ser Pro Lys Ser		
	20	25
Leu His Ala Gly Ser Pro His Pro Ser Cys Ser Arg Lys His Val Arg		30
	35	40
Lys Gln Ser Arg Arg Leu Leu Arg Gly Arg His Glu Ser Thr Leu Val		45
	50	55
Leu Lys Pro Phe Pro Asn Val Leu Val Asp Cys Val Val Leu Pro Lys		60
65	70	75
Leu Pro Ala Ala Gly Ala Arg Glu Val Thr Pro Ala Gly Ala Ala Ala		80
	85	90
Gly Gly Ser Pro Arg Trp Leu Ala Leu Phe Leu Phe Cys Phe Phe Phe		95
	100	105
		110

&lt;210&gt; 4342

&lt;211&gt; 1253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4342

Met Gln Ala Asp Lys Cys Arg Thr Ser Ser Arg Ser Val Lys Lys Glu

1 5 10 15

Leu Val Ile Glu Ser Pro Leu Gln Tyr Lys Asp Ala Ala Gln Gly Glu

20 25 30

Val Glu Ala Glu Ser Pro Gly Pro Val Pro Ala Lys Pro Lys Leu Ile

35 40 45

Glu Pro Leu Asp Tyr Glu Asn Val Ile Val Gln Lys Lys Thr Gln Ile

50 55 60

Leu Asn Asp Cys Leu Arg Glu Met Leu Leu Phe Pro Tyr Asp Asp Phe

65 70 75 80

Gln Thr Ala Ile Leu Arg Arg Gln Gly Arg Tyr Ile Cys Ser Thr Val

85 90 95

Pro Ala Lys Ala Glu Glu Glu Ala Gln Ser Leu Phe Val Thr Glu Cys

100 105 110

Ile Lys Thr Tyr Asn Ser Asp Trp His Leu Val Asn Tyr Lys Tyr Glu

115 120 125

Asp Tyr Ser Gly Glu Phe Arg Gln Leu Pro Asn Lys Val Val Lys Leu

130 135 140

Asp Lys Leu Pro Val His Val Tyr Glu Val Asp Glu Glu Val Asp Lys

145 150 155 160

Asp Glu Asp Ala Ala Ser Leu Gly Pro Gln Lys Gly Gly Ile Thr Lys

	165		170		175
His Gly Trp Leu Tyr Lys Gly Asn Met Asn Ser Ala Ile Ser Val Thr					
	180		185		190
Met Arg Ser Phe Lys Arg Arg Phe Phe His Leu Ile Gln Leu Gly Asp					
	195		200		205
Gly Ser Tyr Asn Leu Asn Phe Tyr Lys Asp Glu Lys Ile Ser Lys Glu					
	210		215		220
Pro Lys Gly Ser Ile Phe Leu Asp Ser Cys Met Gly Val Val Gln Asn					
	225		230		235
Asn Lys Val Arg Arg Phe Ala Phe Glu Leu Lys Met Gln Asp Lys Ser					
	245		250		255
Ser Tyr Leu Leu Ala Ala Asp Ser Glu Val Glu Met Glu Glu Trp Ile					
	260		265		270
Thr Ile Leu Asn Lys Ile Leu Gln Leu Asn Phe Glu Ala Ala Met Gln					
	275		280		285
Glu Lys Arg Asn Gly Asp Pro His Glu Asp Asp Glu Gln Ser Lys Leu					
	290		295		300
Glu Gly Ser Gly Ser Gly Leu Asp Ser Tyr Leu Pro Glu Leu Ala Lys					
	305		310		315
Ser Ala Arg Glu Ala Glu Ile Lys Leu Lys Ser Glu Ser Arg Val Lys					
	325		330		335
Leu Phe Tyr Leu Asp Pro Asp Ala Gln Lys Leu Asp Phe Ser Ser Ala					
	340		345		350
Glu Pro Glu Val Lys Ser Phe Glu Glu Lys Phe Gly Lys Arg Ile Leu					
	355		360		365
Val Lys Cys Asn Asp Leu Ser Phe Asn Leu Gln Cys Cys Val Ala Glu					
	370		375		380
Asn Glu Glu Gly Pro Thr Thr Asn Val Glu Pro Phe Phe Val Thr Leu					
	385		390		395
					400



Ser Leu Phe Asp Ile Lys Tyr Asn Arg Lys Ile Ser Ala Asp Phe His  
405 410 415  
Val Asp Leu Asn His Phe Ser Val Arg Gln Met Leu Ala Thr Thr Ser  
420 425 430  
Pro Ala Leu Met Asn Gly Ser Gly Gln Ser Pro Ser Val Leu Lys Gly  
435 440 445  
Ile Leu His Glu Ala Ala Met Gln Tyr Pro Lys Gln Gly Ile Phe Ser  
450 455 460  
Val Thr Cys Pro His Pro Asp Ile Phe Leu Val Ala Arg Ile Glu Lys  
465 470 475 480  
Val Leu Gln Gly Ser Ile Thr His Cys Ala Glu Pro Tyr Met Lys Ser  
485 490 495  
Ser Asp Ser Ser Lys Val Ala Gln Lys Val Leu Lys Asn Ala Lys Gln  
500 505 510  
Ala Cys Gln Arg Leu Gly Gln Tyr Arg Met Pro Phe Ala Trp Ala Ala  
515 520 525  
Arg Thr Leu Phe Lys Asp Ala Ser Gly Asn Leu Asp Lys Asn Ala Arg  
530 535 540  
Phe Ser Ala Ile Tyr Arg Gln Asp Ser Asn Lys Leu Ser Asn Asp Asp  
545 550 555 560  
Met Leu Lys Leu Leu Ala Asp Phe Arg Lys Pro Glu Lys Met Ala Lys  
565 570 575  
Leu Pro Val Ile Leu Gly Asn Leu Asp Ile Thr Ile Asp Asn Val Ser  
580 585 590  
Ser Asp Phe Pro Asn Tyr Val Asn Ser Ser Tyr Ile Pro Thr Lys Gln  
595 600 605  
Phe Glu Thr Cys Ser Lys Thr Pro Ile Thr Phe Glu Val Glu Glu Phe  
610 615 620  
Val Pro Cys Ile Pro Lys His Thr Gln Pro Tyr Thr Ile Tyr Thr Asn

625                      630                      635                      640  
His Leu Tyr Val Tyr Pro Lys Tyr Leu Lys Tyr Asp Ser Gln Lys Ser  
                         645                      650                      655  
Phe Ala Lys Ala Arg Asn Ile Ala Ile Cys Ile Glu Phe Lys Asp Ser  
                         660                      665                      670  
Asp Glu Glu Asp Ser Gln Pro Leu Lys Cys Ile Tyr Gly Arg Pro Gly  
                         675                      680                      685  
Gly Pro Val Phe Thr Arg Ser Ala Phe Ala Ala Val Leu His His His  
                         690                      695                      700  
Gln Asn Pro Glu Phe Tyr Asp Glu Ile Lys Ile Glu Leu Pro Thr Gln  
705                      710                      715                      720  
Leu His Glu Lys His His Leu Leu Leu Thr Phe Phe His Val Ser Cys  
                         725                      730                      735  
Asp Asn Ser Ser Lys Gly Ser Thr Lys Lys Arg Asp Val Val Glu Thr  
                         740                      745                      750  
Gln Val Gly Tyr Ser Trp Leu Pro Leu Leu Lys Asp Gly Arg Val Val  
                         755                      760                      765  
Thr Ser Glu Gln His Ile Pro Val Ser Ala Asn Leu Pro Ser Gly Tyr  
                         770                      775                      780  
Leu Gly Tyr Gln Glu Leu Gly Met Gly Arg His Tyr Gly Pro Glu Ile  
785                      790                      795                      800  
Lys Trp Val Asp Gly Gly Lys Pro Leu Leu Lys Ile Ser Thr His Leu  
                         805                      810                      815  
Val Ser Thr Val Tyr Thr Gln Asp Gln His Leu His Asn Phe Phe Gln  
                         820                      825                      830  
Tyr Cys Gln Lys Thr Glu Ser Gly Ala Gln Ala Leu Gly Asn Glu Leu  
                         835                      840                      845  
Val Lys Tyr Leu Lys Ser Leu His Ala Met Glu Gly His Val Met Ile  
                         850                      855                      860

Ala Phe Leu Pro Thr Ile Leu Asn Gln Leu Phe Arg Val Leu Thr Arg  
865 870 875 880  
Ala Thr Gln Glu Glu Val Ala Val Asn Val Thr Arg Val Ile Ile His  
885 890 895  
Val Val Ala Gln Cys His Glu Glu Gly Leu Glu Ser His Leu Arg Ser  
900 905 910  
Tyr Val Lys Tyr Ala Tyr Lys Ala Glu Pro Tyr Val Ala Ser Glu Tyr  
915 920 925  
Lys Thr Val His Glu Glu Leu Thr Lys Ser Met Thr Thr Ile Leu Lys  
930 935 940  
Pro Ser Ala Asp Phe Leu Thr Ser Asn Lys Leu Leu Lys Tyr Ser Trp  
945 950 955 960  
Phe Phe Phe Asp Val Leu Ile Lys Ser Met Ala Gln His Leu Ile Glu  
965 970 975  
Asn Ser Lys Val Lys Leu Leu Arg Asn Gln Arg Phe Pro Ala Ser Tyr  
980 985 990  
His His Ala Val Glu Thr Val Val Asn Met Leu Met Pro His Ile Thr  
995 1000 1005  
Gln Lys Phe Arg Asp Asn Pro Glu Ala Ser Lys Asn Ala Asn His Ser  
1010 1015 1020  
Leu Ala Val Phe Ile Lys Arg Cys Phe Thr Phe Met Asp Arg Gly Phe  
1025 1030 1035 1040  
Val Phe Lys Gln Ile Asn Asn Tyr Ile Ser Cys Phe Ala Pro Gly Asp  
1045 1050 1055  
Pro Lys Thr Leu Phe Glu Tyr Lys Phe Glu Phe Leu Arg Val Val Cys  
1060 1065 1070  
Asn His Glu His Tyr Ile Pro Leu Asn Leu Pro Met Pro Phe Gly Lys  
1075 1080 1085  
Gly Arg Ile Gln Arg Tyr Gln Asp Leu Gln Leu Asp Tyr Ser Leu Thr

1090 1095 1100  
Asp Glu Phe Cys Arg Asn His Phe Leu Val Gly Leu Leu Leu Arg Glu  
1105 1110 1115 1120  
Val Gly Thr Ala Leu Gln Glu Phe Arg Glu Val Arg Leu Ile Ala Ile  
1125 1130 1135  
Ser Val Leu Lys Asn Leu Leu Ile Lys His Ser Phe Asp Asp Arg Tyr  
1140 1145 1150  
Ala Ser Arg Ser His Gln Ala Arg Ile Ala Thr Leu Tyr Leu Pro Leu  
1155 1160 1165  
Phe Gly Leu Leu Ile Glu Asn Val Gln Arg Ile Asn Val Arg Asp Val  
1170 1175 1180  
Ser Pro Phe Pro Val Asn Ala Gly Met Thr Val Lys Asp Glu Ser Leu  
1185 1190 1195 1200  
Ala Leu Pro Ala Val Asn Pro Leu Val Thr Pro Gln Lys Gly Ser Thr  
1205 1210 1215  
Leu Asp Asn Ser Leu His Lys Asp Leu Leu Gly Ala Ile Ser Gly Ile  
1220 1225 1230  
Gly Asn Ala Pro Cys Ser Cys Gly Leu Leu Ser Thr Ile Thr Leu Lys  
1235 1240 1245  
Val Ser Trp Ser Gln  
1250

&lt;210&gt; 4343

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4343

Met Cys His His Ala Trp Leu Ser Phe Val Phe Leu Val Glu Thr Gly  
 1 5 10 15  
 Phe His His Ile Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Ser Asp  
 20 25 30  
 Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Met Ser His  
 35 40 45  
 His Thr Arg Leu Ser Asn Thr Ile Leu Ser Arg Ser Gly Glu Arg Gly  
 50 55 60  
 His Pro Cys Leu Val Pro Val Phe Lys Gly Asn Ala Ser Ser Phe Cys  
 65 70 75 80  
 Pro Phe Ser Ile Ile Leu Ala Val Phe Val Ile Asn Ser Ser Tyr Tyr  
 85 90 95  
 Phe Glu Ile His Ser Ile Ser Thr  
 100

&lt;210&gt; 4344

&lt;211&gt; 772

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4344

Met Asp Thr Glu Phe Gly Ala Ser Ser Phe Phe His Ser Pro Ala Ser  
 1 5 10 15  
 Cys His Glu Ser His Ser Ser Leu Ser Pro Glu Ser Ser Ala Pro Gln  
 20 25 30  
 His Ser Ser Pro Ser Arg Ser Ala Leu Lys Leu Leu Thr Ser Val Glu  
 35 40 45  
 Val Asp Asn Ile Glu Pro Ser Ala Phe His Arg Gln Gly Leu Pro Lys

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Glu Ser Thr Glu His Ser Ser Leu Ala Leu Asn Ser Gly Leu Pro Asn  
290 295 300  
Gly Glu Thr Ser Ser Gly Gly Gln Pro Arg Leu Ala Glu Pro Asp Ile  
305 310 315 320  
Tyr Gln Glu Lys Leu Ser Gln Val Arg Asp Val Arg Ser Lys Asp Leu  
325 330 335  
Gly Ser Ser Thr Asp Leu Gly Thr Ser Leu Pro Leu Asp Ser Trp Val  
340 345 350  
Asn Ile Thr Arg Phe Cys Asp Ser Gln Leu Lys His Gly Ala Pro Arg  
355 360 365  
Pro Gly Met Lys Ser Ser Pro His Asp Ser His Thr Cys Val Thr Tyr  
370 375 380  
Pro Glu Arg Asn His Ile Leu Leu His Pro His Trp Asn Gln Asp Thr  
385 390 395 400  
Glu Gln Glu Thr Ser Glu Leu Glu Ser Leu Tyr Gln Ala Ser Leu Gln  
405 410 415  
Ala Ser Gln Ala Gly Cys Ser Gly Trp Gly Gln Gln Asp Thr Ala Trp  
420 425 430  
His Pro Leu Ser Gln Thr Gly Ser Ala Asp Gly Met Gly Arg Arg Leu  
435 440 445  
His Ser Ala His Asp Pro Gly Leu Ser Lys Thr Ser Thr Ala Glu Met  
450 455 460  
Glu His Gly Leu His Glu Ala Arg Thr Val Arg Thr Ser Gln Ala Thr  
465 470 475 480  
Pro Cys Arg Gly Leu Ser Arg Glu Cys Gly Glu Asp Glu Gln Tyr Ser  
485 490 495  
Ala Glu Asn Leu Arg Arg Ile Ser Arg Ser Leu Ser Gly Thr Val Val  
500 505 510  
Pro Glu Arg Glu Glu Ala Pro Val Ser Ser His Ser Phe Asp Ser Ser

出証特 2 0 0 4 - 3 0 5 9 6 6 0



Leu Ser Asp Ala Pro Arg Arg Glu Gln Ile Arg Ala Arg Val Leu Gln  
755 760 765  
His Ser Gln Trp  
770

<210> 4345

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4345

Met Asp Leu Ser Leu His Val Ala Ser Leu Cys Leu Pro His His Pro  
1 5 10 15  
Ser Pro Ala Gln Leu Lys Pro Ala Gly Ala Leu Cys Arg Gln Ala Met  
20 25 30  
Gly Asp Cys Asp Leu Pro Glu Phe Cys Thr Gly Thr Ser Ser His Cys  
35 40 45  
Pro Pro Asp Val Tyr Leu Leu Asp Gly Ser Pro Cys Ala Arg Gly Ser  
50 55 60  
Gly Tyr Cys Trp Asp Gly Ala Cys Pro Thr Leu Glu Gln Gln Cys Gln  
65 70 75 80  
Gln Leu Trp Gly Pro Gly Glu Arg Thr Arg Ala Pro Leu His Pro Ala  
85 90 95  
Pro His Pro Leu Val Gly Pro Val Phe Tyr Cys Gly Glu Asp Gly Gln  
100 105 110  
Gly Lys Leu Arg Pro Ala Glu Arg Ser Pro Ser Pro Ser Cys Pro Gln  
115 120 125  
Pro Gly Pro Cys Phe Leu Arg Leu Pro Pro Ser Ser Arg Gly Leu Phe

130	135	140
Pro Gly Gly Glu Leu Cys Gly Arg Cys Ser Trp Lys Leu Arg Pro Gly		
145	150	155
Gln Arg Gly Pro Leu Pro Ala Leu Cys Arg Glu Gly Cys Pro Val Trp		
165	170	175
Glu Ala Ala Val Pro Gly Trp Lys Ala Gln Pro Ala Arg Thr Ala His		
180	185	190
Gly Ala Ser Gly Leu Tyr Arg Ser Pro Arg Trp Pro Gly Ser Asp Leu		
195	200	205
Ser Gly Ser Leu Gly Thr Pro Gln Cys Pro Ala Gly Pro Ala Trp Pro		
210	215	220
Gly Pro Gly Arg Ala Arg His Pro Val Trp Thr		
225	230	235

&lt;210&gt; 4346

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4346

Met Gly Lys Arg Glu Gln Val Gly Arg Arg Ser Gly Ala Trp Ala Glu
1 5 10 15
Ala Ala Met Leu Cys Phe Leu Leu Gln Val Glu Ala Ser Gly Val Tyr
20 25 30
Ala Ala Ser Lys Glu Gly Gly His Gly Arg Gly Val Leu Ser His Ala
35 40 45
Ala Arg Ala Gly Arg Pro Trp Glu Ala Ala His Phe Phe Leu Gly Pro
50 55 60

Asp Ala Trp Ser Val Thr Thr Gly Arg Ala Gly Leu Thr Glu Ala Pro  
65 70 75 80  
Ala Pro Ala Ala Pro Tyr Leu Pro Gly Met Ala Arg Glu Ser Arg Pro  
85 90 95  
Glu Gly Gly Ser Ser Arg Leu Leu Glu Gln Glu Arg Ala Gly Ser Gly  
100 105 110  
Asp Arg Cys Val Pro Ala Ala Gln Arg Ser Gly Gln Gly  
115 120 125

<210> 4347

<211> 170

<212> PRT

<213> Homo sapiens

<400> 4347

Met Ala Thr Ala Thr Asn Glu Leu Gly Gln Ala Thr Cys Ala Ala Ser  
1 5 10 15  
Leu Thr Val Arg Pro Gly Gly Ser Thr Ser Pro Phe Ser Ser Pro Ile  
20 25 30  
Thr Ser Asp Glu Glu Tyr Leu Ser Pro Pro Glu Glu Phe Pro Glu Pro  
35 40 45  
Gly Glu Thr Trp Pro Arg Thr Pro Thr Met Lys Pro Ser Pro Ser Gln  
50 55 60  
Asn Arg Arg Ser Ser Asp Thr Gly Ser Lys Ala Pro Pro Thr Phe Lys  
65 70 75 80  
Val Ser Leu Met Asp Gln Ser Val Arg Glu Gly Gln Asp Val Ile Met  
85 90 95  
Ser Ile Arg Val Gln Gly Glu Pro Lys Pro Val Val Ser Trp Leu Arg

100 105 110  
Asn Arg Gln Pro Val Arg Pro Asp Gln Arg Arg Phe Ala Glu Glu Ala  
115 120 125  
Glu Gly Gly Leu Cys Arg Leu Arg Ile Leu Ala Ala Glu Arg Gly Asp  
130 135 140  
Ala Gly Phe Tyr Thr Cys Lys Ala Val Asn Glu Tyr Gly Ala Arg Gln  
145 150 155 160  
Cys Glu Ala Arg Leu Glu Val Arg Gly Glu  
165 170

&lt;210&gt; 4348

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4348

Met Ile Leu Ala His Cys Ser Leu Asp Phe Leu Gly Ser Ser Asp Pro  
1 5 10 15  
Pro Gln Pro Pro Met Trp Leu Glu Pro Gln Ala Arg Ala Thr Met Pro  
20 25 30  
Gly Tyr Phe Phe Val Glu Leu Gly Ser Arg Phe Val Ala Gln Ala Gly  
35 40 45  
Leu Glu Leu Leu Gly Ser Ser Asn Pro Ser His Ser Ala Ser Arg Ser  
50 55 60  
Val Glu Asn Ile Gly Val Gly Tyr Tyr Thr Cys Phe Ser Arg Phe Tyr  
65 70 75 80  
Lys Thr Ala Asp Leu Cys Val Glu Asp Arg Pro Gly Val Cys Ser Leu  
85 90 95

Arg Cys Glu Asp Val Leu Ser Arg Asp Phe Pro Trp Val Ser Ile Ser  
100 105 110  
Phe Phe Leu Leu Ser Ser Lys Thr Asn Arg Arg Pro Ala Ala Val Ala  
115 120 125  
Gln Ala Ser Ser Pro Ser Thr Leu Gly Gly Cys Arg Trp Arg Ile Thr  
130 135 140  
Arg Pro Gly Val Arg Asp Gln Pro Gly Arg His Asp Glu Ala Leu Ser  
145 150 155 160  
Leu Pro Lys Met Gln Lys Leu Ala Gly Cys Asp Gly Gly Cys Leu Trp  
165 170 175  
Ser Gln Leu Leu Gly Arg Leu Arg Gln Glu Asn Cys Leu Asp Pro Gly  
180 185 190  
Gly Gly Gly Cys Ser Glu Pro Gly Ser Cys His Cys Thr Pro Ala Trp  
195 200 205  
Ala Thr Gly Arg Asp Ser Val Ser Lys Thr Asn Thr Ile Arg Lys Cys  
210 215 220  
Ser Gly Gly Gly Gly Glu Leu Leu Ile Cys Glu Asp Arg Leu Lys Ala  
225 230 235 240  
Thr Pro Arg Val Ala Leu Ser Thr Ser Pro Ser Arg Ile Trp Leu Pro  
245 250 255  
Ala Ser Leu Lys Ile Val Val Trp His Lys Glu Arg Cys Arg Arg Leu  
260 265 270  
Val Leu Ser Thr Leu Glu Phe Pro Ala Ala Gln His Leu Val Pro Ser  
275 280 285  
Pro Pro Pro Ser Gln Gly Ala Ala Ile Leu Phe Gly Phe Ser Val Cys  
290 295 300  
Gly Pro Glu Thr Asn Val Phe Pro Lys Asp  
305 310

&lt;210&gt; 4349

&lt;211&gt; 413

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4349

Met Ser Leu Thr Thr Asp Asp Leu Leu Arg Leu Pro Ala Asp Gly Ser

1 5 10 15

Phe Ser Tyr Thr Tyr Val Gly Pro Ser His Arg Thr Ser Lys Lys Asn

20 25 30

Lys Lys Cys Arg Gly Arg Leu Gly Ser Leu Asp Ile Glu Lys Asn Pro

35 40 45

His Phe Gln Gly Pro Tyr Thr Ser Met Gly Lys Asp Asn Phe Val Thr

50 55 60

Pro Val Ile Arg Ser Asn Ile Asn Gly Lys Gln Cys Gly Arg Leu Lys

65 70 75 80

Asn Pro Lys Leu Met Asn Arg Thr Asn Asn Cys Ile Ser Glu Ser Ser

85 90 95

Leu Ser Phe Pro Lys Lys Ser Ser Phe Lys Asp Ser Ser Glu His Ser

100 105 110

Leu Glu Lys Asn Tyr Pro Arg Trp Leu Thr Ser Gln Lys Ser Asp Leu

115 120 125

Asn Val Ser Gly Ile Thr Ser Ile Pro Asp Phe Lys Tyr Pro Val Trp

130 135 140

Leu His Asn Gln Asp Leu Leu Pro Asp Ala Asn Ser Gln Arg Val Tyr

145 150 155 160

Gln Ile Phe Lys Asp Asp Gln Cys Ser Pro Arg His Ser His Gln Ala

165 170 175

Gln Gly Thr Ser Arg Leu Ile Asn Lys Leu Asp Cys Phe Glu Tyr Ala  
 180 185 190  
 Phe Glu Pro Ser Asn Phe Ser Asn Ser Leu Ser Asp Asp Lys Glu Leu  
 195 200 205  
 Val Asn Glu Tyr Lys Cys Asp Phe Glu His Ser Gln Cys Gln Cys Glu  
 210 215 220  
 Asn Pro Leu Leu Pro Gly Gln Ser Thr Lys Pro Phe Ser Gly Asp Lys  
 225 230 235 240  
 Ile Glu Leu Leu Ile Leu Lys Ala Lys Arg Asn Leu Glu Gln Cys Thr  
 245 250 255  
 Glu Glu Leu Pro Lys Ser Met Lys Lys Asp Asp Ser Pro Cys Ser Leu  
 260 265 270  
 Asp Lys Leu Glu Ala Asp Arg Ser Trp Glu Asn Ile Pro Val Thr Phe  
 275 280 285  
 Lys Ser Pro Val Pro Val Asn Ser Asp Asp Ser Pro Gln Gln Thr Ser  
 290 295 300  
 Arg Ala Lys Ser Ala Lys Gly Val Leu Glu Asp Phe Leu Asn Asn Asp  
 305 310 315 320  
 Asn Gln Ser Cys Thr Leu Ser Gly Gly Lys His His Gly Pro Val Glu  
 325 330 335  
 Ala Leu Lys Gln Met Leu Phe Asn Leu Gln Ala Val Gln Glu Arg Phe  
 340 345 350  
 Asn Gln Asn Lys Thr Thr Asp Pro Lys Glu Glu Ile Lys Gln Val Ser  
 355 360 365  
 Glu Asp Asp Phe Ser Lys Leu Gln Leu Lys Glu Ser Met Ile Pro Ile  
 370 375 380  
 Thr Arg Ser Leu Gln Lys Ala Leu His His Leu Ser Arg Leu Arg Asp  
 385 390 395 400  
 Leu Val Asp Asp Thr Asn Gly Glu Arg Ser Pro Lys Met

405

410

&lt;210&gt; 4350

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4350

Met Gly Gly Lys Leu Ser Asp Ser Arg Lys Asn Leu Cys Lys Gln Ser

1

5

10

15

Ser Gln Ser Asp Thr Phe Gly Asp Pro Arg Pro Ala Gly Val Lys Ile

20

25

30

Ser Val Asn Pro Leu Lys Cys Leu Leu Gly Val Gly His Thr Leu Pro

35

40

45

Gly Pro Leu Ala Cys Pro Ala Leu Ala Trp Pro Val Met Ser Gly Ile

50

55

60

Gln Gly Cys His Pro Leu Pro Lys Leu Ser Cys Gly Val Pro Gly Val

65

70

75

80

Ala Phe Pro Pro Thr Val Pro Arg Leu Pro Leu Leu Ser Val Ala Ala

85

90

95

Pro His Ser Gly Gly Ile Met Ser Ala Gly Glu Leu Ser Leu Pro Gln

100

105

110

His Ser Trp Pro Arg Leu Trp Ala Ser Ser Glu Ile Ala Val Thr Thr

115

120

125

Arg Pro Ala Met Asp Ser Leu

130

135



&lt;210&gt; 4351

&lt;211&gt; 205

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4351

Met Leu Pro Ser Phe Tyr Ser Glu Leu Phe Thr Leu Tyr Leu Leu Leu

1 5 10 15

His Glu Arg Glu Asp Ser Phe Tyr Ser Gln Gly Ile Ala Asn Leu Ser

20 25 30

Leu Phe Pro Asp Thr Gln Leu Leu Glu Phe Leu Asp Val Gln Lys His

35 40 45

Leu Trp Pro Leu Lys Asp Leu Thr Leu Thr Ser Asn Gln Arg Tyr Ser

50 55 60

Leu Val Arg Asp Lys Cys Phe Leu Ser Ala Thr Glu Cys Leu Gln Lys

65 70 75 80

Ile Met Thr Thr Val Asp Pro Arg Glu Lys Leu Glu Val Leu Glu Arg

85 90 95

Thr Tyr Gly Glu Ile Glu Gly Thr Val Ser Arg Val Leu Gly Arg Glu

100 105 110

Tyr Lys Leu Pro Met Asp Asp Leu Leu Pro Leu Leu Ile Tyr Val Val

115 120 125

Ser Arg Ala Arg Trp Gly Ser Gln Gly Pro Glu Lys Gly Gly Ser Gln

130 135 140

Pro Gly Cys Trp Gly Ala Arg Gly Arg Val Arg Thr Thr Pro Gln Val

145 150 155 160

Ser Ser His Pro Gly Gln Arg Ser Phe Pro Ser Cys Leu Ser Ala Thr

165 170 175

Gly Leu Phe Ser Leu Ser Pro Ser Leu Ser Trp Trp Gly Gly Val Leu

180 185 190  
Gln Asn Ser Ala Pro Gly Ser Arg Asp Pro Pro Asp Pro  
195 200 205

<210> 4352

<211> 416

<212> PRT

<213> Homo sapiens

<400> 4352

Met Ser Pro Ala Met Leu Ser Val Leu Val Lys Met Met Leu Ala Gln  
1 5 10 15  
Ala Gln Glu Ser Val Phe Glu Lys Ile Ser Leu Pro Gly Ile Arg Asn  
20 25 30  
Glu Phe Phe Met Leu Val Lys Val Ala Gln Glu Ala Ala Lys Val Gly  
35 40 45  
Glu Val Tyr Gln Gln Leu His Ala Ala Met Ser Gln Ala Pro Val Lys  
50 55 60  
Glu Asn Ile Pro Tyr Ser Trp Ala Ser Leu Ala Cys Val Lys Ala His  
65 70 75 80  
His Tyr Ala Ala Leu Ala His Tyr Phe Thr Ala Ile Leu Leu Ile Asp  
85 90 95  
His Gln Val Lys Pro Gly Thr Asp Leu Asp His Gln Glu Lys Cys Leu  
100 105 110  
Ser Gln Leu Tyr Asp His Met Pro Glu Gly Leu Thr Pro Leu Ala Thr  
115 120 125  
Leu Lys Asn Asp Gln Gln Arg Arg Gln Leu Gly Lys Ser His Leu Arg  
130 135 140

Arg Ala Met Ala His His Glu Glu Ser Val Arg Glu Ala Ser Leu Cys  
145 150 155 160  
Lys Lys Leu Arg Ser Ile Glu Val Leu Gln Lys Val Leu Cys Ala Ala  
165 170 175  
Gln Glu Arg Ser Arg Leu Thr Tyr Ala Gln His Gln Glu Glu Asp Asp  
180 185 190  
Leu Leu Asn Leu Ile Asp Ala Pro Ser Val Val Ala Lys Thr Glu Gln  
195 200 205  
Glu Val Asp Ile Ile Leu Pro Gln Phe Ser Lys Leu Thr Val Thr Asp  
210 215 220  
Phe Phe Gln Lys Leu Gly Pro Leu Ser Val Phe Ser Ala Asn Lys Arg  
225 230 235 240  
Trp Thr Pro Pro Arg Ser Ile Arg Phe Thr Ala Glu Glu Gly Asp Leu  
245 250 255  
Gly Phe Thr Leu Arg Gly Asn Ala Pro Val Gln Val His Phe Leu Asp  
260 265 270  
Pro Tyr Cys Ser Ala Ser Val Ala Gly Ala Arg Glu Gly Asp Tyr Ile  
275 280 285  
Val Ser Ile Gln Leu Val Asp Cys Lys Trp Leu Thr Leu Ser Glu Val  
290 295 300  
Met Lys Leu Leu Lys Ser Phe Gly Glu Asp Glu Ile Glu Met Lys Val  
305 310 315 320  
Val Ser Leu Leu Asp Ser Thr Ser Ser Met His Asn Lys Ser Ala Thr  
325 330 335  
Tyr Ser Val Gly Met Gln Lys Thr Tyr Ser Met Ile Cys Leu Ala Ile  
340 345 350  
Asp Asp Asp Asp Lys Thr Asp Lys Thr Lys Lys Ile Ser Lys Lys Leu  
355 360 365  
Ser Phe Leu Ser Trp Gly Thr Asn Lys Asn Arg Gln Lys Ser Ala Ser

370	375	380
Thr Leu Cys Leu Pro Ser Val Gly Ala Ala Arg Pro Gln Val Lys Lys		
385	390	395
Lys Leu Pro Ser Pro Phe Ser Leu Leu Asn Ser Asp Ser Ser Trp Tyr		
405	410	415

&lt;210&gt; 4353

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4353

Met Ser Ala Leu Ile Leu Pro Arg Met Lys Gly Pro Arg Leu Thr His		
1	5	10
Pro Glu Ser Arg Ala His Gln Ala Leu Pro Gly His Ser Leu Ser Ser		
20	25	30
Ser Ser His Ser Leu Arg Ser Ala Cys Ala Thr Gln Ile Gln Thr Ser		
35	40	45
Arg Thr Trp Glu Val Glu Trp Leu Thr Arg Gly His Pro Leu Glu Glu		
50	55	60
Ala Lys Ala Gly Leu Glu Pro Arg Pro Val Gly Val Gln Val Arg Pro		
65	70	75
Leu Pro Ala Ala Gln Cys Pro Leu Ser Ser Ser Ser Leu Gly Thr Leu		
85	90	95
Glu Pro Gln Trp Gly Val Gln Gly Ser Ala Gln Pro Phe Pro Arg Cys		
100	105	110
Val Thr Pro Ser Thr Phe Leu Pro Leu Ser Val Pro Leu Gly Val Ala		
115	120	125

Arg Glu Leu Gly Gly Val Ile Leu His His Glu His Pro Pro Phe Ser  
130 135 140  
Pro Ser Ala Glu Lys Ser Val Pro Leu Cys Ile Leu Tyr Glu Lys Tyr  
145 150 155 160  
Arg Asp Cys Leu Thr Glu Ser Asn Leu Ile Lys Val Arg Ala Leu Leu  
165 170 175  
Val Glu Pro Val Ile Asn Ser Tyr Leu Leu Ala Glu Arg Asp Leu Tyr  
180 185 190  
Leu Glu Asn Pro Glu Ile Lys Ile Arg Ile Leu Gly Glu Pro Lys Gln  
195 200 205  
Lys Arg Lys Leu Val Ala Glu Val Ser Leu Gln Asn Pro Leu Pro Val  
210 215 220  
Ala Leu Glu Gly Cys Thr Phe Thr Val Glu Gly Ala Gly Leu Thr Glu  
225 230 235 240  
Glu Gln Lys Thr Val Glu Ile Pro Asp Pro Val Glu Ala Gly Glu Glu  
245 250 255  
Val Lys Val Arg Met Asp Leu Leu Pro Leu His Met Gly Leu His Lys  
260 265 270  
Leu Val Val Asn Phe Glu Ser Asp Lys Leu Lys Ala Val Lys Gly Phe  
275 280 285  
Arg Asn Val Ile Ile Gly Pro Ala  
290 295

&lt;210&gt; 4354

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4354

Met Ser Ala Leu Ala Val Ser Met Ala Met Val Arg Gly Ser Leu Pro

1 5 10 15

Ser Glu Ser Arg Ala Pro Arg Ser Ala Pro Arg Phe Arg Asn Arg Gln

20 25 30

Ala Ser Leu Glu Arg Arg Ala Arg Val Ser Arg Pro Pro Asn Phe Ser

35 40 45

Gln Pro Ser Ser Pro Cys His His Pro Tyr Pro Val Trp Pro Arg Met

50 55 60

Val Ala Trp Cys Ser Gly Pro Arg Pro Ala Leu Ser Ala Trp Phe Thr

65 70 75 80

Phe Ala Pro Phe Trp Arg Arg Asn Ser Gln Ala Arg Arg Glu Phe Cys

85 90 95

Met Glu Lys Ser Arg Arg Gly Val Glu Gly Gly Ile Pro Ser Gly Gly

100 105 110

Phe Gln Asp Val Leu Gly Trp Arg Gln Phe Arg Glu Trp Glu Gly Gly

115 120 125

Val Trp

130

&lt;210&gt; 4355

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4355

Met Glu Pro Ala Pro Val Ser Ala Pro Thr Arg Ser Pro Cys Ser Pro

1 5 10 15

Ser Leu Trp Ser Pro Gln Asp Ala Glu Pro Asn Gly Gly Arg Ala Gly  
20 25 30  
His Ala Gly Gly Arg Val Ala Leu Ala Ser Gln His Pro Ala Gln Arg  
35 40 45  
Lys Pro Leu Leu Arg Gly Arg Pro His Arg Gly Ala Val Gly Pro Asp  
50 55 60  
Gly Cys Ala Leu Leu Pro Gln Val Ser Pro Pro Ala Pro Ala Pro Ala  
65 70 75 80  
His Ser Ala Asp Ser Ala Pro Arg Ala Thr Gly Ser Ala Pro Trp Thr  
85 90 95  
Ala Pro Ala Ala Pro Asn Pro Ala Gly Asp Leu Pro Gly Gly Ser Trp  
100 105 110  
Ser Ser Pro Ser His Pro Asp Ala Ser Leu Arg Ser Asn Ser Arg Ala  
115 120 125  
Asn Phe Gln Leu Gln Pro Leu Leu Pro Pro Ala Gly Gly Ala Ser His  
130 135 140  
Arg Pro Pro Thr Pro Ser Ile Pro Ser Thr His Ser Pro Thr Pro Cys  
145 150 155 160  
Gly Ser Leu Gln Lys Arg Pro Gly Arg Leu Cys Pro Pro Ala Pro Pro  
165 170 175  
Gly Leu Ser Pro Ser Arg Thr His Leu Ser Ser Arg Thr Leu Phe Pro  
180 185 190  
Gly Gly Thr Leu Leu Thr Lys Pro Lys Asp Gln Thr Glu Arg Pro Phe  
195 200 205  
Leu Pro Ser Pro Thr  
210

&lt;210&gt; 4356

&lt;211&gt; 333

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4356

Met Lys Tyr Arg Ser Cys Ala Asp Cys Val Leu Ala Arg Asp Pro Tyr

1 5 10 15

Cys Ala Trp Ser Val Asn Thr Ser Arg Cys Val Ala Val Gly Gly His

20 25 30

Ser Gly Ser Leu Leu Ile Gln His Val Met Thr Ser Asp Thr Ser Gly

35 40 45

Ile Cys Asn Leu Arg Gly Ser Lys Lys Val Arg Pro Thr Pro Lys Asn

50 55 60

Ile Thr Val Val Ala Gly Thr Asp Leu Val Leu Pro Cys His Leu Ser

65 70 75 80

Ser Asn Leu Ala His Ala Arg Trp Thr Phe Gly Gly Arg Asp Leu Pro

85 90 95

Ala Glu Gln Pro Gly Ser Phe Leu Tyr Asp Ala Arg Leu Gln Ala Leu

100 105 110

Val Val Met Ala Ala Gln Pro Arg His Ala Gly Ala Tyr His Cys Phe

115 120 125

Ser Glu Glu Gln Gly Ala Arg Leu Ala Ala Glu Gly Tyr Leu Val Ala

130 135 140

Val Val Ala Gly Pro Ser Val Thr Leu Glu Ala Arg Ala Pro Leu Glu

145 150 155 160

Asn Leu Gly Leu Val Trp Leu Ala Val Val Ala Leu Gly Ala Val Cys

165 170 175

Leu Val Leu Leu Leu Leu Val Leu Ser Leu Arg Arg Arg Leu Arg Glu

180 185 190



Glu Leu Glu Lys Gly Ala Lys Ala Thr Glu Arg Thr Leu Val Tyr Pro  
 195 200 205  
 Leu Glu Leu Pro Lys Glu Pro Thr Ser Pro Pro Phe Arg Pro Cys Pro  
 210 215 220  
 Glu Pro Asp Glu Lys Leu Trp Asp Pro Val Gly Tyr Tyr Tyr Ser Asp  
 225 230 235 240  
 Gly Ser Leu Lys Ile Val Pro Gly His Ala Arg Cys Gln Pro Gly Gly  
 245 250 255  
 Gly Pro Pro Ser Pro Pro Pro Gly Ile Pro Gly Gln Pro Leu Pro Ser  
 260 265 270  
 Pro Thr Arg Leu His Leu Gly Gly Gly Arg Asn Ser Asn Ala Asn Gly  
 275 280 285  
 Tyr Val Arg Leu Gln Leu Gly Gly Glu Asp Arg Gly Gly Leu Gly His  
 290 295 300  
 Pro Leu Pro Glu Leu Ala Asp Glu Leu Arg Arg Lys Leu Gln Gln Arg  
 305 310 315 320  
 Gln Pro Leu Pro Asp Ser Asn Pro Glu Glu Ser Ser Val  
 325 330

&lt;210&gt; 4357

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4357

Met Leu Glu Gly Val Ser Asn Glu Phe Asp His Phe Gly Ile Ser Leu  
 1 5 10 15  
 Pro Leu Lys Ile Cys Leu His Leu Gly Trp Asp Glu Gly Leu Val Glu

20 25 30  
Gly Lys Val Val Arg Leu Gly Gln Gly Ile Gly Lys Ser Ile Cys Ser  
35 40 45  
Ser Cys Gln Leu Phe Glu Glu Ala Pro Thr Gln Met Ser Thr Val Pro  
50 55 60  
Ser Gly Leu Pro Leu Pro Ile Leu Met His Leu Cys Leu Leu Pro Val  
65 70 75 80  
Cys Met Ala His Leu Cys Pro Ala Ser Pro Cys Tyr Phe Gly Ala Thr  
85 90 95  
Pro Gly Ser Gly Lys Phe Cys Arg Leu Ile Thr Tyr Ser His Ser Ser  
100 105 110  
Pro Gln Leu Ala Ala Ser Leu Arg His Arg Gly Arg Glu Val Gly Lys  
115 120 125  
Asp Leu Pro Tyr Pro Gly Leu Cys Pro Leu Thr Phe His Pro Ser Phe  
130 135 140  
Phe Pro Pro Val Glu Gly Cys Val Ser Ser Leu Pro Gly Lys Leu Leu  
145 150 155 160  
Ser Pro Gln Thr Ile Phe Phe Gln Ile Leu Trp Leu Tyr Ser Lys Ser  
165 170 175  
Ser Leu Val Leu  
180

&lt;210&gt; 4358

&lt;211&gt; 1222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4358

Met Leu Asp Pro Ser Ser Ser Glu Glu Glu Ser Asp Glu Gly Leu Glu  
 1 5 10 15  
 Glu Glu Ser Arg Asp Val Leu Val Ala Ala Gly Ser Ser Gln Arg Ala  
 20 25 30  
 Pro Pro Ala Pro Thr Arg Glu Gly Gln Leu Asp Asp Glu Gln Glu Arg  
 35 40 45  
 Arg Ile Arg Leu Gln Leu Tyr Val Phe Val Val Arg Cys Ile Ala Tyr  
 50 55 60  
 Pro Phe Asn Ala Lys Gln Pro Thr Asp Met Ala Arg Arg Gln Gln Lys  
 65 70 75 80  
 Leu Asn Lys Gln Gln Leu Gln Leu Leu Lys Glu Arg Phe Gln Ala Phe  
 85 90 95  
 Leu Asn Gly Glu Thr Gln Ile Val Ala Asp Glu Ala Phe Cys Asn Ala  
 100 105 110  
 Val Arg Ser Tyr Tyr Glu Val Phe Leu Lys Ser Asp Arg Val Ala Arg  
 115 120 125  
 Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Phe Arg Glu Val Phe  
 130 135 140  
 Lys Lys Asn Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile Asp Gly  
 145 150 155 160  
 Leu Ser Lys Glu Thr Val Leu Ser Ser Trp Ile Ala Lys Tyr Asp Ala  
 165 170 175  
 Ile Tyr Arg Gly Glu Glu Asp Leu Cys Lys Gln Pro Asn Arg Met Ala  
 180 185 190  
 Leu Ser Ala Val Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu Tyr Glu  
 195 200 205  
 Met Phe Gln Gln Ile Leu Gly Ile Lys Lys Leu Glu His Gln Leu Leu  
 210 215 220  
 Tyr Asn Ala Cys Gln Leu Asp Asn Ala Asp Glu Gln Ala Ala Gln Ile

出証特 2 0 0 4 - 3 0 5 9 6 6 0

Gly Gln Lys Val Trp Lys Arg Trp Lys Lys Arg Tyr Phe Val Leu Val  
 465 470 475 480  
 Gln Val Ser Gln Tyr Thr Phe Ala Met Cys Ser Tyr Arg Glu Lys Lys  
 485 490 495  
 Ser Glu Pro Gln Glu Leu Met Gln Leu Glu Gly Tyr Thr Val Asp Tyr  
 500 505 510  
 Thr Asp Pro His Pro Gly Leu Gln Gly Gly Cys Met Phe Phe Asn Ala  
 515 520 525  
 Val Lys Glu Gly Asp Thr Val Ile Phe Ala Ser Asp Asp Glu Gln Asp  
 530 535 540  
 Arg Ile Leu Trp Val Gln Ala Met Tyr Arg Ala Thr Gly Gln Ser Tyr  
 545 550 555 560  
 Lys Pro Val Pro Ala Ile Gln Thr Gln Lys Leu Asn Pro Lys Gly Gly  
 565 570 575  
 Thr Leu His Ala Asp Ala Gln Leu Tyr Ala Asp Arg Phe Gln Lys His  
 580 585 590  
 Gly Met Asp Glu Phe Ile Ser Ala Asn Pro Cys Lys Leu Asp His Ala  
 595 600 605  
 Phe Leu Phe Arg Ile Leu Gln Arg Gln Thr Leu Asp His Arg Leu Asn  
 610 615 620  
 Asp Ser Tyr Ser Cys Leu Gly Trp Phe Ser Pro Gly Gln Val Phe Val  
 625 630 635 640  
 Leu Asp Glu Tyr Cys Ala Arg Tyr Gly Val Arg Gly Cys His Arg His  
 645 650 655  
 Leu Cys Tyr Leu Ala Glu Leu Met Glu His Ser Glu Asn Gly Ala Val  
 660 665 670  
 Ile Asp Pro Thr Leu Leu His Tyr Ser Phe Ala Phe Cys Ala Ser His  
 675 680 685  
 Val His Gly Asn Arg Pro Asp Gly Ile Gly Thr Val Ser Val Glu Glu

690 695 700  
Lys Glu Arg Phe Glu Glu Ile Lys Glu Arg Leu Ser Ser Leu Leu Glu  
705 710 715 720  
Asn Gln Ile Ser His Phe Arg Tyr Cys Phe Pro Phe Gly Arg Pro Glu  
725 730 735  
Gly Ala Leu Lys Ala Thr Leu Ser Leu Leu Glu Arg Val Leu Met Lys  
740 745 750  
Asp Ile Ala Thr Pro Ile Pro Ala Glu Glu Val Lys Lys Val Val Arg  
755 760 765  
Lys Cys Leu Glu Lys Ala Ala Leu Ile Asn Tyr Thr Arg Leu Thr Glu  
770 775 780  
Tyr Ala Lys Ile Glu Glu Thr Met Asn Gln Ala Ser Pro Ala Arg Lys  
785 790 795 800  
Leu Glu Glu Ile Leu His Leu Ala Glu Leu Cys Ile Glu Val Leu Gln  
805 810 815  
Gln Asn Glu Glu His His Ala Glu Ala Phe Ala Trp Trp Pro Asp Leu  
820 825 830  
Leu Ala Glu His Ala Glu Lys Phe Trp Ala Leu Phe Thr Val Asp Met  
835 840 845  
Asp Thr Ala Leu Glu Ala Gln Pro Gln Asp Ser Trp Asp Ser Phe Pro  
850 855 860  
Leu Phe Gln Leu Leu Asn Asn Phe Leu Arg Asn Asp Thr Leu Leu Cys  
865 870 875 880  
Asn Gly Lys Phe His Lys His Leu Gln Glu Ile Phe Val Pro Leu Val  
885 890 895  
Val Arg Tyr Val Asp Leu Met Glu Ser Ser Ile Ala Gln Ser Ile His  
900 905 910  
Arg Gly Phe Glu Gln Glu Thr Trp Gln Pro Val Asn Asn Gly Ser Ala  
915 920 925

Thr Ser Glu Asp Leu Phe Trp Lys Leu Asp Ala Leu Gln Met Phe Val  
930 935 940  
Phe Asp Leu His Trp Pro Glu Gln Glu Phe Ala His His Leu Glu Gln  
945 950 955 960  
Arg Leu Lys Leu Met Ala Ser Asp Met Leu Glu Ala Cys Val Lys Arg  
965 970 975  
Thr Arg Thr Ala Phe Glu Leu Lys Leu Gln Lys Ala Ser Lys Thr Thr  
980 985 990  
Asp Leu Arg Ile Pro Ala Ser Val Cys Thr Met Phe Asn Val Leu Val  
995 1000 1005  
Asp Ala Lys Lys Gln Ser Thr Lys Leu Cys Ala Leu Asp Gly Gly Gln  
1010 1015 1020  
Glu Phe Gly Ser Gln Trp Gln Gln Tyr His Ser Lys Ile Asp Asp Leu  
1025 1030 1035 1040  
Ile Asp Asn Ser Val Lys Glu Ile Ile Leu Leu Leu Val Ser Lys Phe  
1045 1050 1055  
Val Ser Val Leu Glu Gly Val Leu Ser Lys Leu Ser Arg Tyr Asp Glu  
1060 1065 1070  
Gly Thr Phe Phe Ser Ser Ile Leu Ser Phe Thr Val Lys Ala Ala Val  
1075 1080 1085  
Lys Tyr Val Asp Val Pro Lys Pro Gly Met Asp Leu Ala Asp Thr Tyr  
1090 1095 1100  
Ile Met Phe Val Arg Gln Asn Gln Asp Ile Leu Arg Glu Lys Val Asn  
1105 1110 1115 1120  
Glu Glu Met Tyr Ile Glu Lys Leu Phe Asp Gln Trp Tyr Ser Ser Ser  
1125 1130 1135  
Met Lys Val Ile Cys Val Trp Leu Thr Asp Arg Leu Asp Leu Gln Leu  
1140 1145 1150  
His Ile Tyr Gln Leu Lys Thr Leu Ile Lys Ile Val Lys Lys Thr Tyr

1155                      1160                      1165  
 Arg Asp Phe Arg Leu Gln Gly Val Leu Glu Gly Thr Leu Asn Ser Lys  
 1170                      1175                      1180  
 Thr Tyr Asp Thr Val His Arg Arg Leu Thr Val Glu Glu Ala Thr Ala  
 1185                      1190                      1195                      1200  
 Ser Val Ser Glu Gly Gly Gly Leu Gln Gly Ile Thr Met Lys Asp Ser  
                          1205                      1210                      1215  
 Asp Glu Glu Glu Glu Gly  
                          1220

<210> 4359

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4359

Met Asn Gln Leu Pro Ala Gly Pro Pro Val Pro Gly Ser Gly Ser Gly  
     1                      5                      10                      15  
 Pro Leu Ala Ala Cys Pro Glu Leu Thr Ser Ala Thr Ser Pro Trp Leu  
                          20                      25                      30  
 Gln Val Gly Thr Asn Ala Met Asp Ser Pro Leu Leu Lys Tyr Ser Ala  
                          35                      40                      45  
 Lys Asp Tyr Phe Phe Lys Ala Ala Leu Cys His Phe Cys Ile Asp Met  
                          50                      55                      60  
 Leu Asn Ala Lys Leu Ala Val Gln Lys Tyr Glu Glu Leu Phe Pro Ala  
                          65                      70                      75                      80  
 Phe Ser Asp Ser Arg Glu Cys Lys Leu Met Lys Lys Leu Leu Glu Ala  
                          85                      90                      95



His Glu Glu Gln Asn Val Asp Ser Tyr Thr Glu Ser Val Lys Glu Tyr

100

105

110

Asp Ser Ile Ser Arg Leu Asp Gln Trp Leu Thr Thr Met Leu Leu Arg

115

120

125

Ile Lys Lys Thr Ile Gln Gly Asp Glu Glu Asp Leu Arg

130

135

140

<210> 4360

<211> 545

<212> PRT

<213> Homo sapiens

<400> 4360

Met Glu Leu Ser Gln Lys Leu Tyr Lys Tyr Cys Pro Lys Glu Trp Lys

1

5

10

15

Lys Glu Ala Ser Lys Gly Ile Asp Gln Phe Gly Pro Pro Met Ile Ile

20

25

30

His Phe Arg Val Gln Tyr Tyr Val Glu Asn Gly Arg Leu Ile Ser Asp

35

40

45

Arg Ala Ala Arg Tyr Tyr Tyr Tyr Trp His Leu Arg Lys Gln Val Leu

50

55

60

His Ser Gln Cys Val Leu Arg Glu Glu Ala Tyr Phe Leu Leu Ala Ala

65

70

75

80

Phe Ala Leu Gln Ala Asp Leu Val Asn Phe Lys Arg Asn Lys His Tyr

85

90

95

Gly Lys Tyr Phe Glu Pro Glu Ala Tyr Phe Pro Ser Trp Val Val Ser

100

105

110

Lys Arg Gly Lys Asp Tyr Ile Leu Lys His Ile Pro Asn Met His Lys

115 120 125  
Asp Gln Phe Ala Leu Thr Ala Ser Glu Ala His Leu Lys Tyr Ile Lys  
130 135 140  
Glu Ala Val Arg Leu Asp Asp Val Ala Val His Tyr Tyr Arg Leu Tyr  
145 150 155 160  
Lys Asp Lys Arg Glu Ile Glu Ala Ser Leu Thr Leu Gly Leu Thr Met  
165 170 175  
Arg Gly Ile Gln Ile Phe Gln Asn Leu Asp Glu Glu Lys Gln Leu Leu  
180 185 190  
Tyr Asp Phe Pro Trp Thr Asn Val Gly Lys Leu Val Phe Val Gly Lys  
195 200 205  
Lys Phe Glu Ile Leu Pro Asp Gly Leu Pro Ser Ala Arg Lys Leu Ile  
210 215 220  
Tyr Tyr Thr Gly Cys Pro Met Arg Ser Arg His Leu Leu Gln Leu Leu  
225 230 235 240  
Ser Asn Ser His Arg Leu Tyr Met Asn Leu Gln Pro Val Leu Arg His  
245 250 255  
Ile Arg Lys Leu Glu Glu Asn Glu Glu Lys Lys Gln Tyr Arg Glu Ser  
260 265 270  
Tyr Ile Ser Asp Asn Leu Asp Leu Asp Met Asp Gln Leu Glu Lys Arg  
275 280 285  
Ser Arg Ala Ser Gly Ser Ser Ala Gly Ser Met Lys His Lys Arg Leu  
290 295 300  
Ser Arg His Ser Thr Ala Ser His Ser Ser Ser His Thr Ser Gly Ile  
305 310 315 320  
Glu Ala Asp Thr Lys Pro Arg Asp Thr Gly Pro Glu Asp Ser Tyr Ser  
325 330 335  
Ser Ser Ala Ile His Arg Lys Leu Lys Thr Cys Ser Ser Met Thr Ser  
340 345 350

His Gly Ser Ser His Thr Ser Gly Val Glu Ser Gly Gly Lys Asp Arg  
355 360 365

Leu Glu Glu Asp Leu Gln Asp Asp Glu Ile Glu Met Leu Val Asp Asp  
370 375 380

Pro Arg Asp Leu Glu Gln Met Asn Glu Glu Ser Leu Glu Val Ser Pro  
385 390 395 400

Asp Met Cys Ile Tyr Ile Thr Glu Asp Met Leu Met Ser Arg Lys Leu  
405 410 415

Asn Gly His Ser Gly Leu Ile Val Lys Glu Ile Gly Ser Ser Thr Ser  
420 425 430

Ser Ser Ser Glu Thr Val Val Lys Leu Arg Gly Gln Ser Thr Asp Ser  
435 440 445

Leu Pro Gln Thr Ile Cys Arg Lys Pro Lys Thr Ser Thr Asp Arg His  
450 455 460

Ser Leu Ser Leu Asp Asp Ile Arg Leu Tyr Gln Lys Asp Phe Leu Arg  
465 470 475 480

Ile Ala Gly Leu Cys Gln Asp Thr Ala Gln Ser Tyr Thr Phe Gly Cys  
485 490 495

Gly His Glu Leu Asp Glu Glu Gly Leu Tyr Cys Asn Ser Cys Leu Ala  
500 505 510

Gln Gln Cys Ile Asn Ile Gln Asp Ala Phe Pro Val Lys Arg Thr Ser  
515 520 525

Lys Tyr Phe Ser Leu Asp Leu Thr His Asp Glu Val Pro Glu Phe Val  
530 535 540

Val  
545

<210> 4361

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4361

Met Cys Glu Pro Glu Cys Lys Thr Gln Leu Thr Ala Ser Thr Trp Arg

1 5 10 15

Ser Gly Thr Pro Gly His Thr Gly Pro Tyr Ala Gly Ser Leu Trp Asp

20 25 30

Pro Lys Pro Leu Trp Val Val Leu Gly Asp Ser Ser Ser Trp Ala Phe

35 40 45

Pro Ala Asn Cys His Arg Cys Leu Cys Tyr Ser Ala Phe Leu His Leu

50 55 60

Gly Gln Asn Asn Phe Ala Glu Ala His Arg Phe Phe Thr Glu Ile Leu

65 70 75 80

Arg Met Asp Pro Arg Asn Ala Val Ala Asn Asn Asn Ala Ala Val Cys

85 90 95

Leu Leu Tyr Leu Gly Lys Leu Lys Asp Ser Leu Arg Gln Leu Glu Ala

100 105 110

Met Val Gln Gln Asp Pro Arg His Tyr Leu His Glu Ser Val Leu Phe

115 120 125

Asn Leu Thr Thr Met Tyr Glu Leu Glu Ser Ser Arg Ser Met Gln Lys

130 135 140

Lys Gln Ala Leu Leu Glu Ala Val Ala Gly Lys Glu Gly Asp Ser Phe

145 150 155 160

Asn Thr Gln Cys Leu Lys Leu Ala

165

&lt;210&gt; 4362

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4362

Met Pro Gln Ala Leu Pro Cys Leu Leu Pro Cys Arg Tyr Leu Ser His

1 5 10 15

Thr Glu Leu Ala Pro Leu Arg Ala Pro Leu Ile Pro Met Glu His Cys

20 25 30

Thr Thr Arg Phe Phe Glu Thr Cys Asp Leu Asp Asn Asp Lys Tyr Ile

35 40 45

Ala Leu Asp Glu Trp Ala Gly Cys Phe Gly Ile Lys Gln Ser Glu Cys

50 55 60

Leu Asn Lys Glu Ala Arg Gly Met Gly Arg Asn Thr Ala Pro Arg Val

65 70 75 80

Leu Gly Cys His Pro Pro Thr Leu Arg Ser Leu Gly Leu Ser Val Val

85 90 95

Cys Pro Leu Cys Leu Ser Leu Leu Ser Leu Pro Ile

100 105

&lt;210&gt; 4363

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4363

Met Ser Asn Ala Ser Phe Leu Ser Val Cys Leu Leu Ala Glu Asn Pro

1 5 10 15  
Val Gln Leu Ser Pro Gly Cys His Gly Lys Tyr Asp Lys Glu Arg Thr  
20 25 30  
Leu Gly Leu Gly Leu Lys Gly Leu Val Ile Gln Lys Thr Arg Glu Gly  
35 40 45  
Cys Thr Cys Arg Val Ile Tyr Ser Arg Asn Leu Ile Lys Tyr Leu Ala  
50 55 60  
His Arg Ser Tyr Lys Glu Ser Phe Gln Arg Gly Pro Leu Ala Thr Ala  
65 70 75 80  
Gly Phe Phe Val Arg Asn Ile Cys Val Phe Phe Ile Arg Gly Asn Lys  
85 90 95  
Thr Leu Gly Lys Glu Val Ser Ile Ile Tyr Ser His Phe Ser Ser Phe  
100 105 110  
Leu Asn Lys Thr Phe Ser Ser Arg Asn Thr Ala Phe Glu Gly Leu Cys  
115 120 125  
Phe Met Gln Pro Ala Ser Leu Val Asp Leu Phe Thr Arg Ser His Gln  
130 135 140  
Val Ile Ser Ser Ile Leu Gly Arg Trp Arg Lys Gln Thr Asp Thr Val  
145 150 155 160  
Ser Arg Cys

&lt;210&gt; 4364

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4364

Met Arg Gln Met Leu Pro Glu Glu Gln Leu Lys Cys Glu Phe Leu Leu  
1 5 10 15  
Leu Lys Val Tyr Cys Asp Ser Lys Ser Cys Phe Phe Ala Ser Glu Pro  
20 25 30  
Tyr Tyr Asn Arg Glu Gly Ser Gln Gly Pro Gln Lys Pro Met Trp Leu  
35 40 45  
Asn Lys Val Lys Thr Ser Leu Asn Glu Gln Thr Tyr Thr Arg Val Glu  
50 55 60  
Gly Phe Val Gln Asp Met Arg Leu Ile Phe His Asn His Lys Glu Phe  
65 70 75 80  
Tyr Arg Glu Asp Lys Phe Thr Arg Leu Gly Ile Gln Val Gln Asp Ile  
85 90 95  
Phe Glu Lys Asn Phe Arg Asn Ile Phe Ala Ile Gln Glu Thr Ser Lys  
100 105 110  
Asn Ile Ile Met Phe Ile  
115

&lt;210&gt; 4365

&lt;211&gt; 222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4365

Met Gly Thr Ser Ala Leu Thr Val Ser Ser Ala Leu Pro Ser Val Gly  
1 5 10 15  
Thr Ser Ala His Thr Leu Ser Ser Ala Leu Pro Val His Gly Asp Val  
20 25 30  
Cys Thr His Arg Met Ser Ser Ala Leu Pro Ser Val Asn Gly Asp Val

35	40	45
Cys Thr His Ser Val Leu Gly Thr Ala Leu Arg Gly Asp Val Cys Thr		
50	55	60
His Thr Val Leu Gly Thr Ala Leu Arg Gly Asp Val Cys Thr His Ser		
65	70	75
Val Leu Gly Thr Ala Leu Arg Lys Trp Gly Arg Leu His Ser Gln Asn		
85	90	95
Val Leu Gly Thr Ala Leu Arg Gly Asp Val Cys Thr His Ser Val Leu		
100	105	110
Gly Thr Ala Leu Arg Gly Asp Val Cys Thr His Ser Val Leu Gly Thr		
115	120	125
Ala Leu Arg Gly Asp Val Cys Thr His Ser Val Leu Gly Thr Ala Leu		
130	135	140
Arg Gly Asp Val Cys Thr His Arg Met Ser Ser Ala Leu Pro Ser Met		
145	150	155
Gly Thr Ser Ala Leu Thr Val Ser Ser Ala Leu Pro Ser Val Gly Thr		
165	170	175
Ser Ala Leu Thr Glu Cys Pro Arg His Cys Pro Pro Trp Gly Arg Leu		
180	185	190
His Ser Gln Cys Pro Arg His Cys Pro Pro Gly Arg Leu His Thr Val		
195	200	205
Ser Leu Ala Gln Leu Gly Leu Gly Ala Leu Ala Leu Glu Ala		
210	215	220

&lt;210&gt; 4366

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 4366

Met Ser Ile Cys Leu Lys His Val Leu Phe Gly Ala Ala Val Ala Phe  
 1 5 10 15  
 Leu Phe Leu Cys Ile Phe Ser Phe Ser Phe Leu Phe Phe Phe Phe  
 20 25 30  
 Leu Phe Val Leu Arg Phe Cys Leu Asp Leu Leu Pro Arg Leu Glu Cys  
 35 40 45  
 Ser Gly Val Ile Ser Ala His Cys Asn Leu Cys Leu Pro Gly Ser Ser  
 50 55 60  
 Asn Cys Pro Ala Ser Ala Ser Arg Val Ala Gly Ile Thr Gly Ala Cys  
 65 70 75 80  
 His His Ala Gln Leu Ile Phe Cys Val Leu Val Glu Thr Gly Phe His  
 85 90 95  
 His Val Gly Arg Leu Val Ser Asn Ser  
 100 105

&lt;210&gt; 4367

&lt;211&gt; 588

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4367

Met Asp Leu Arg Thr Ala Val Tyr Asn Ala Ala Arg Asp Gly Lys Leu  
 1 5 10 15  
 Gln Leu Leu Gln Lys Leu Leu Ser Gly Arg Ser Arg Glu Glu Leu Asp  
 20 25 30  
 Glu Leu Thr Gly Glu Val Ala Gly Gly Gly Thr Pro Leu Leu Ile Ala

35	40	45
Ala Arg Tyr Gly His Leu Val Gly Glu His Gln Ala Asp Leu Glu Val		
50	55	60
Ala Asn Arg His Gly His Thr Cys His Met Ile Ser Cys Tyr Lys Gly		
65	70	75
His Arg Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn		
85	90	95
Arg Arg Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser		
100	105	110
Gly Ser Leu Glu Ile Leu Gln Leu Leu Leu Gly Cys Lys Ala Arg Met		
115	120	125
Glu Arg Asp Gly Tyr Gly Met Thr Pro Leu Leu Ala Ala Ser Val Thr		
130	135	140
Gly His Thr Asn Ile Val Glu Tyr Leu Ile Gln Glu Gln Pro Gly Gln		
145	150	155
Glu Gln Val Ala Gly Gly Glu Ala Gln Pro Gly Leu Pro Gln Glu Asp		
165	170	175
Pro Ser Thr Ser Gln Gly Cys Ala Gln Pro Gln Gly Ala Pro Cys Cys		
180	185	190
Ser Ser Ser Pro Glu Glu Pro Leu Asn Gly Glu Ser Tyr Glu Ser Cys		
195	200	205
Cys Pro Thr Ser Arg Glu Ala Ala Val Glu Ala Leu Glu Leu Pro Gly		
210	215	220
Ala Thr Tyr Val Asp Lys Lys Arg Asp Leu Leu Gly Ala Leu Lys His		
225	230	235
Trp Arg Arg Ala Met Glu Leu Arg His Gln Gly Gly Glu Tyr Leu Pro		
245	250	255
Lys Pro Glu Pro Pro Gln Leu Val Leu Ala Tyr Asp Tyr Ser Arg Glu		
260	265	270

Val Asn Thr Thr Glu Glu Leu Glu Ala Leu Ile Thr Asp Pro Asp Glu  
275 280 285

Met Arg Met Gln Ala Leu Leu Ile Arg Glu Arg Ile Leu Gly Pro Ser  
290 295 300

His Pro Asp Thr Ser Tyr Tyr Ile Arg Tyr Arg Gly Ala Val Tyr Ala  
305 310 315 320

Asp Ser Gly Asn Phe Glu Arg Cys Ile Arg Leu Trp Lys Tyr Ala Leu  
325 330 335

Asp Met Gln Gln Ser Asn Leu Glu Pro Leu Ser Pro Met Thr Ala Ser  
340 345 350

Ser Phe Leu Ser Phe Ala Glu Leu Phe Ser Tyr Val Leu Gln Asp Arg  
355 360 365

Ala Ala Lys Gly Ser Leu Gly Thr Gln Ile Gly Phe Ala Asp Leu Met  
370 375 380

Gly Val Leu Thr Lys Gly Val Arg Glu Val Glu Arg Ala Leu Gln Leu  
385 390 395 400

Pro Arg Glu Pro Gly Asp Ser Ala Gln Phe Thr Lys Ala Leu Ala Ile  
405 410 415

Ile Leu His Leu Leu Tyr Leu Leu Glu Lys Val Glu Cys Thr Pro Ser  
420 425 430

Gln Glu His Leu Lys His Gln Thr Val Tyr Arg Leu Leu Lys Cys Ala  
435 440 445

Pro Arg Gly Lys Asn Gly Phe Thr Pro Leu His Met Ala Val Asp Lys  
450 455 460

Asp Thr Thr Asn Val Gly Arg Tyr Pro Val Gly Arg Phe Pro Ser Leu  
465 470 475 480

His Val Val Lys Val Leu Leu Asp Cys Gly Ala Asp Pro Asp Ser Arg  
485 490 495

Asp Phe Asp Asn Asn Thr Pro Leu His Ile Ala Ala Gln Asn Asn Cys

500	505	510	
Pro Ala Ile Met Asn Ala Leu Ile Glu Ala Gly Ala His Met Asp Ala			
515	520	525	
Thr Asn Ala Phe Lys Lys Thr Ala Tyr Glu Leu Leu Asp Glu Lys Leu			
530	535	540	
Leu Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys			
545	550	555	560
Leu Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe			
565	570	575	
Ile Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His			
580	585		

&lt;210&gt; 4368

&lt;211&gt; 624

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4368

Met Cys Met Cys Gln Ala Ser Pro Pro Pro Ala Ala Leu Ala Gly Cys
1 5 10 15
Leu Leu Ser Ser Cys Val Gln Pro Ala Arg Glu His Gly Gly Ala Phe
20 25 30
Ser Lys Ala Glu Trp Leu Ser Asn Cys Ile Asn Lys Tyr Gly Ser Pro
35 40 45
Tyr Thr Lys Asn Ser Gly Phe Ala Thr Cys Val Gln Asn Leu Pro Asp
50 55 60
Gln Cys Thr Pro Asn Pro Cys Asp Arg Lys Gly Thr Gln Ala Cys Gln
65 70 75 80

Asp Leu Met Gly Asn Phe Phe Cys Leu Cys Lys Ala Gly Trp Gly Gly  
85 90 95  
Arg Leu Cys Asp Lys Asp Val Asn Glu Cys Ser Gln Glu Asn Gly Gly  
100 105 110  
Cys Leu Gln Ile Cys His Asn Lys Pro Gly Ser Phe His Cys Ser Cys  
115 120 125  
His Ser Gly Phe Glu Leu Ser Ser Asp Gly Arg Thr Cys Gln Asp Ile  
130 135 140  
Asp Glu Cys Ala Asp Ser Glu Ala Cys Gly Glu Ala Arg Cys Lys Asn  
145 150 155 160  
Leu Pro Gly Ser Tyr Ser Cys Leu Cys Asp Glu Gly Phe Ala Tyr Ser  
165 170 175  
Ser Gln Glu Lys Ala Cys Arg Asp Val Asp Glu Cys Leu Gln Gly Arg  
180 185 190  
Cys Glu Gln Val Cys Val Asn Ser Pro Gly Ser Tyr Thr Cys His Cys  
195 200 205  
Asp Gly Arg Gly Gly Leu Lys Leu Ser Gln Asp Met Asp Thr Cys Glu  
210 215 220  
Asp Ile Leu Pro Cys Val Pro Phe Ser Val Ala Lys Ser Val Lys Ser  
225 230 235 240  
Leu Tyr Leu Gly Arg Met Phe Ser Gly Thr Pro Val Ile Arg Leu Arg  
245 250 255  
Phe Lys Arg Leu Gln Pro Thr Arg Leu Val Ala Glu Phe Asp Phe Arg  
260 265 270  
Thr Phe Asp Pro Glu Gly Ile Leu Leu Phe Ala Gly Gly His Gln Asp  
275 280 285  
Ser Thr Trp Ile Val Leu Ala Leu Arg Ala Gly Arg Leu Glu Leu Gln  
290 295 300  
Leu Arg Tyr Asn Gly Val Gly Arg Val Thr Ser Ser Gly Pro Val Ile

305                      310                      315                      320  
Asn His Gly Met Trp Gln Thr Ile Ser Val Glu Glu Leu Ala Arg Asn  
                         325                      330                      335  
Leu Val Ile Lys Val Asn Arg Asp Ala Val Met Lys Ile Ala Val Ala  
                         340                      345                      350  
Gly Asp Leu Phe Gln Pro Glu Arg Gly Leu Tyr His Leu Asn Leu Thr  
                         355                      360                      365  
Val Gly Gly Ile Pro Phe His Glu Lys Asp Leu Val Gln Pro Ile Asn  
                         370                      375                      380  
Pro Arg Leu Asp Gly Cys Met Arg Ser Trp Asn Trp Leu Asn Gly Glu  
385                      390                      395                      400  
Asp Thr Thr Ile Gln Glu Thr Val Lys Val Asn Thr Arg Met Gln Cys  
                         405                      410                      415  
Phe Ser Val Thr Glu Arg Gly Ser Phe Tyr Pro Gly Ser Gly Phe Ala  
                         420                      425                      430  
Phe Tyr Ser Leu Asp Tyr Met Arg Thr Pro Leu Asp Val Gly Thr Glu  
                         435                      440                      445  
Ser Thr Trp Glu Val Glu Val Val Ala His Ile Arg Pro Ala Ala Asp  
                         450                      455                      460  
Thr Gly Val Leu Phe Ala Leu Trp Ala Pro Asp Leu Arg Ala Val Pro  
465                      470                      475                      480  
Leu Ser Val Ala Leu Val Asp Tyr His Ser Thr Lys Lys Leu Lys Lys  
                         485                      490                      495  
Gln Leu Val Val Leu Ala Val Glu His Thr Ala Leu Ala Leu Met Glu  
                         500                      505                      510  
Ile Lys Val Cys Asp Gly Gln Glu His Val Val Thr Val Ser Leu Arg  
                         515                      520                      525  
Asp Gly Glu Ala Thr Leu Glu Val Asp Gly Thr Arg Gly Gln Ser Glu  
                         530                      535                      540

Val Ser Ala Ala Gln Leu Gln Glu Arg Leu Ala Val Leu Glu Arg His  
 545                      550                      555                      560  
 Leu Arg Ser Pro Val Leu Thr Phe Ala Gly Gly Leu Pro Asp Val Pro  
                          565                      570                      575  
 Val Thr Ser Ala Pro Val Thr Ala Phe Tyr Arg Gly Cys Met Thr Leu  
                          580                      585                      590  
 Glu Val Asn Arg Arg Leu Leu Asp Leu Asp Glu Ala Ala Tyr Lys His  
                          595                      600                      605  
 Ser Asp Ile Thr Ala His Ser Cys Pro Pro Val Glu Pro Ala Ala Ala  
                          610                      615                      620

<210> 4369

<211> 528

<212> PRT

<213> Homo sapiens

<400> 4369

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Leu Phe Ser  
 1                      5                      10                      15  
 Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile  
                          20                      25                      30  
 Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr  
                          35                      40                      45  
 Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys  
                          50                      55                      60  
 Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu  
                          65                      70                      75                      80  
 Arg Glu Asp Gln Glu His Thr Tyr Arg Val Val Arg Phe Glu Val Ile

85	90	95
Pro Gln Ser Ile Arg Leu Glu Asp Leu Lys Ala Asp Glu Lys Ser Ser		
100	105	110
Cys Thr Leu Pro Glu Gly Thr Asn Ser Ser Pro Gln Glu Ile Asp Pro		
115	120	125
Thr Lys Glu Asn Gln Leu Tyr Phe Thr Tyr Ser Val His Trp Glu Glu		
130	135	140
Ser Asp Ile Lys Trp Ala Ser Arg Trp Asp Thr Tyr Leu Thr Met Ser		
145	150	155
Asp Val Gln Ile His Trp Phe Ser Ile Ile Asn Ser Val Val Val Val		
165	170	175
Phe Phe Leu Ser Gly Ile Leu Ser Met Ile Ile Ile Arg Thr Leu Arg		
180	185	190
Lys Asp Ile Ala Asn Tyr Asn Lys Glu Asp Asp Ile Glu Asp Thr Met		
195	200	205
Glu Glu Ser Gly Trp Lys Leu Val His Gly Asp Val Phe Arg Pro Pro		
210	215	220
Gln Tyr Pro Met Ile Leu Ser Ser Leu Leu Gly Ser Gly Ile Gln Leu		
225	230	235
Phe Cys Met Ile Leu Ile Val Ile Phe Val Ala Met Leu Gly Met Leu		
245	250	255
Ser Pro Ser Ser Arg Gly Ala Leu Met Thr Thr Ala Cys Phe Leu Phe		
260	265	270
Met Phe Met Gly Val Phe Gly Gly Phe Ser Ala Gly Arg Leu Tyr Arg		
275	280	285
Thr Leu Lys Gly His Arg Trp Lys Lys Arg Ala Phe Cys Thr Ala Thr		
290	295	300
Leu Tyr Pro Gly Val Val Phe Gly Ile Cys Phe Val Leu Asn Cys Phe		
305	310	315
		320



Ile Trp Gly Lys His Ser Ser Gly Ala Val Pro Phe Pro Thr Met Val  
325 330 335  
Ala Leu Leu Cys Met Trp Phe Gly Ile Ser Leu Pro Leu Val Tyr Leu  
340 345 350  
Gly Tyr Tyr Phe Gly Phe Arg Lys Gln Pro Tyr Asp Asn Pro Val Arg  
355 360 365  
Thr Asn Gln Ile Pro Arg Gln Ile Pro Glu Gln Arg Trp Tyr Met Asn  
370 375 380  
Arg Phe Val Gly Ile Leu Met Ala Gly Ile Leu Pro Phe Gly Ala Met  
385 390 395 400  
Phe Ile Glu Leu Phe Phe Ile Phe Ser Ala Ile Trp Glu Asn Gln Phe  
405 410 415  
Tyr Tyr Leu Phe Gly Phe Leu Phe Leu Val Phe Ile Ile Leu Val Val  
420 425 430  
Ser Cys Ser Gln Ile Ser Ile Val Met Val Tyr Phe Gln Leu Cys Ala  
435 440 445  
Glu Asp Tyr Arg Trp Trp Trp Arg Asn Phe Leu Val Ser Gly Gly Ser  
450 455 460  
Ala Phe Tyr Val Leu Val Tyr Ala Ile Phe Tyr Phe Val Asn Lys Leu  
465 470 475 480  
Asp Ile Val Glu Phe Ile Pro Ser Leu Leu Tyr Phe Gly Tyr Thr Ala  
485 490 495  
Leu Met Val Leu Ser Phe Trp Leu Leu Thr Gly Thr Ile Gly Phe Tyr  
500 505 510  
Ala Ala Tyr Met Phe Val Arg Lys Ile Tyr Ala Ala Val Lys Ile Asp  
515 520 525

&lt;210&gt; 4370

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4370

Met Asn His Pro Phe Gln Gly Ser His Arg Gln Thr Pro Asp Phe Gly

1 5 10 15

Glu His Leu Ala Leu Leu Pro Pro Pro Ser Ser Leu Pro Pro Pro

20 25 30

Met Pro Phe Pro Tyr Pro Leu Pro Gln Pro Ser Pro Pro Pro Leu Phe

35 40 45

Pro Pro Leu Pro Gln Asp Thr Pro Phe Phe Pro Gly Gln Pro Phe Pro

50 55 60

Pro His Glu Phe Phe Asn Tyr Asn Pro Val Glu Asp Phe Ser Met Pro

65 70 75 80

Pro His Leu Gly Cys Gly Pro Gly Val Asn Phe Val Pro Gly Pro Leu

85 90 95

Pro Pro Pro Ile Pro Gly Pro Asn Pro His Gly Gln His Trp Gly Pro

100 105 110

Val Val His Arg Gly Met Pro Arg Tyr Val Pro Asn Ser Pro Tyr His

115 120 125

Val Arg Arg Met Gly Gly Pro Cys Arg Gln Arg Leu Arg His Ser Glu

130 135 140

Arg Leu Ile His Thr Tyr Lys Leu Asp Arg Arg Pro Pro Ala His Ser

145 150 155 160

Gly Thr Trp Pro Gly

165

&lt;210&gt; 4371

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4371

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Met Ile Val Arg Pro Ser Thr Ala Thr Trp Asn Ser Pro Thr Met Pro
  1             5             10             15
Trp Pro Leu Leu Leu Leu Leu Ala Val Ser Gly Ala Gln Thr Thr Arg
             20             25             30
Pro Cys Phe Pro Gly Cys Gln Cys Glu Val Glu Thr Phe Gly Leu Phe
             35             40             45
Asp Ser Phe Ser Leu Thr Arg Val Asp Cys Ser Gly Leu Gly Pro His
             50             55             60
Ile Met Pro Val Pro Ile Pro Leu Asp Thr Ala His Leu Asp Leu Ser
             65             70             75             80
Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly Pro Gly
             85             90             95
Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu Thr Ser
             100            105            110
Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser Leu Asp
             115            120            125
Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe Thr Ser
             130            135            140
Ser Pro Leu Ser Asp Val Asn Leu Ser His Asn Gln Leu Arg Glu Val
             145            150            155            160
Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu His Val
             165            170            175
Asp Leu Ser His Asn Leu Ile His Arg Leu Val Pro His Pro Thr Arg

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180 185 190  
Ala Gly Leu Pro Ala Pro Thr Ile Gln Ser Leu Asn Leu Ala Trp Asn  
195 200 205  
Arg Leu His Ala Val Pro Asn Leu Arg Asp Leu Pro Leu Arg Tyr Leu  
210 215 220  
Ser Leu Asp Gly Asn Pro Leu Ala Val Ile Gly Pro Gly Ala Phe Ala  
225 230 235 240  
Gly Leu Gly Gly Leu Thr His Leu Ser Leu Ala Ser Leu Gln Arg Leu  
245 250 255  
Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu Leu Pro Gly Leu Gln Val  
260 265 270  
Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn Trp Ala Gly Ala Glu Val  
275 280 285  
Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu Asp Leu Ser Gly Thr Asn  
290 295 300  
Leu Val Pro Leu Pro Glu Ala Leu Leu Leu His Leu Pro Ala Leu Gln  
305 310 315 320  
Ser Val Ser Val Gly Gln Asp Val Arg Cys Arg Arg Leu Val Arg Glu  
325 330 335  
Gly Thr Tyr Pro Arg Arg Pro Gly Ser Ser Pro Lys Val Ala Leu His  
340 345 350  
Cys Val Asp Thr Arg Glu Ser Ala Ala Arg Gly Pro Thr Ile Leu  
355 360 365

&lt;210&gt; 4372

&lt;211&gt; 467

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4372

Met Ser Ala Arg Val Pro Val Ser Leu Cys Ile Tyr Ile His Ala Cys  
 1 5 10 15  
 Val Pro Val Phe Leu Arg Val Leu Val Cys Ala Arg Val His Leu Cys  
 20 25 30  
 Val Cys Gln Ser Met Cys Ala Cys Val Cys Leu Ser Ala Tyr Pro Cys  
 35 40 45  
 Val His Val Cys Val Cys Gln Arg Ile Arg Val Cys Met Cys Val Ser  
 50 55 60  
 Val Ser Leu Thr Met Cys Ala Cys Val Cys Gln Cys Ile Arg Val Cys  
 65 70 75 80  
 Ile Cys Val Ser Val His Val Ser Ala Cys Ala Cys Val Tyr Leu Cys  
 85 90 95  
 Val Ser Ile Lys Gly Pro Pro Arg Pro Gly Ala His Arg Pro Pro Gln  
 100 105 110  
 Arg Thr Leu His Cys Ser Asp Ser Ser Ser Asp Thr Asp Ser Phe Tyr  
 115 120 125  
 Gly Ala Val Glu Arg Pro Val Asp Ile Ser Leu Ser Pro Tyr Pro Thr  
 130 135 140  
 Asp Asn Glu Asp Tyr Glu His Asp Asp Glu Asp Asp Ser Tyr Leu Glu  
 145 150 155 160  
 Pro Asp Ser Pro Glu Pro Gly Arg Leu Glu Asp Ala Leu Met His Pro  
 165 170 175  
 Pro Ala Tyr Pro Pro Pro Pro Val Pro Thr Pro Arg Lys Pro Ala Phe  
 180 185 190  
 Ser Asp Met Pro Arg Ala His Ser Phe Thr Ser Lys Gly Pro Gly Pro  
 195 200 205  
 Leu Leu Pro Pro Pro Pro Pro Lys His Gly Leu Pro Asp Val Gly Leu

210 215 220  
Ala Ala Glu Asp Ser Lys Arg Asp Pro Leu Cys Pro Arg Arg Ala Glu  
225 230 235 240  
Pro Cys Pro Arg Val Pro Ala Thr Pro Arg Arg Met Ser Asp Pro Pro  
245 250 255  
Leu Ser Thr Met Pro Thr Ala Pro Gly Leu Arg Lys Pro Pro Cys Phe  
260 265 270  
Arg Glu Ser Ala Ser Pro Ser Pro Glu Pro Trp Thr Pro Gly His Gly  
275 280 285  
Ala Cys Ser Thr Ser Ser Ala Ala Ile Met Ala Thr Ala Thr Ser Arg  
290 295 300  
Asn Cys Asp Lys Leu Lys Ser Phe His Leu Ser Pro Arg Gly Pro Pro  
305 310 315 320  
Thr Ser Glu Pro Pro Pro Val Pro Ala Asn Lys Pro Lys Phe Leu Lys  
325 330 335  
Ile Ala Glu Glu Asp Pro Pro Arg Glu Ala Ala Met Pro Gly Leu Phe  
340 345 350  
Val Pro Pro Val Ser Pro Arg Pro Pro Ala Leu Lys Leu Pro Val Pro  
355 360 365  
Glu Ala Met Ala Arg Pro Ala Val Leu Pro Arg Pro Glu Lys Pro Gln  
370 375 380  
Leu Pro His Leu Gln Arg Ser Pro Pro Asp Gly Gln Ser Phe Arg Ser  
385 390 395 400  
Phe Ser Phe Glu Lys Pro Arg Gln Pro Ser Gln Ala Asp Thr Gly Gly  
405 410 415  
Asp Asp Ser Asp Glu Asp Tyr Glu Lys Val Pro Leu Pro Asn Ser Val  
420 425 430  
Phe Val Asn Thr Thr Glu Ser Cys Glu Val Glu Arg Ser Ala Gln Ser  
435 440 445

Pro Val Cys Ala Gly Ser Ser Ala Met Pro Gly Phe Leu Leu Leu Cys

450

455

460

Pro Ser His

465

<210> 4373

<211> 1004

<212> PRT

<213> Homo sapiens

<400> 4373

Met Glu Val Thr Asp Arg Lys Cys Ser Glu Leu Leu Tyr Val Phe Gln

1

5

10

15

Thr Gln Leu Ala Leu Lys Leu Leu Gln Cys Leu Lys Val Thr Asp Ala

20

25

30

Pro His Phe Tyr Gly Leu Pro Ser Leu Glu Arg Thr Leu Arg Gly Met

35

40

45

Ala Asn Leu Thr Ala Phe Pro Gly Trp Ser Ser His Ser Pro Leu Thr

50

55

60

Lys Pro Leu Asp Ile Cys Val Lys Tyr Leu Ser Gly Leu Leu Glu Val

65

70

75

80

Ile Thr Ser Phe Tyr Val Glu Arg Gly Gly Asn Ala Met Ser Phe Met

85

90

95

Gly Lys Gly Val Thr Lys Ser Thr Ile Leu Cys Leu Leu His Leu Ser

100

105

110

His Glu Met Met Ala Gln Ala Gly Ser Leu Glu Trp Met Ser Leu Trp

115

120

125

Phe Leu Pro Leu Gly Ser His Ser Glu Glu His Ile Pro Thr Gln Gln

130 135 140  
Gly Leu Ala Trp Leu Ile Pro Leu Trp Val Asp Arg Asp Pro Glu Val  
145 150 155 160  
Arg Phe Thr Ser Leu Gly Leu Gly Ser Ala Leu Thr Thr Leu Glu Thr  
165 170 175  
Gly Cys Val Ala Leu Ala Asn Ser Cys Gln Asn Ile Ser Gly Gly Leu  
180 185 190  
Trp Gly Thr Val Val Asn Ile Leu Leu Asp Gln Ser Glu Cys Ser Met  
195 200 205  
Val Arg Arg Glu Ala Ala Phe Ile Leu Gln Asn Leu Leu Val Ile Pro  
210 215 220  
Met Pro Thr Glu Ile Ile Lys Asp Tyr Thr Trp Gln Gly Pro Cys Val  
225 230 235 240  
His Asp Glu Asp Ser Gly Leu Ser Leu Ile Gly Lys Pro Ala Leu Gln  
245 250 255  
Ala Leu Leu Tyr His Cys His Phe Tyr Glu His Leu Asn Gln Met Val  
260 265 270  
Lys His Cys Tyr Leu Gly Arg Cys Met Phe Asp Leu Asn Phe Ser Ala  
275 280 285  
Phe Asp Arg Asn Ser Glu Ser Asn Asp Leu Asn Gly Leu Asp Asp Ser  
290 295 300  
Phe Lys Phe Trp Arg Ala Pro Ser Arg Thr Ser Gln Asp Arg Asp Pro  
305 310 315 320  
Ser Ser Leu Ser Thr Ser Glu Thr Thr Val Ala Pro Ser Leu Gly Ser  
325 330 335  
Thr Glu Phe Gln Pro Leu Val Gln Ser Thr Thr Leu Leu Pro Glu Ala  
340 345 350  
Ser His Asp Gln Phe Val Ala Gln Gly His Gln Glu Gly Thr Ser Pro  
355 360 365



Arg Pro Pro His Asp Ser Ser Leu Ser Ala Pro Leu Pro Lys Leu Cys  
370 375 380  
Val Phe Val Thr Pro Ser Leu Leu Ser Ala Met Cys Ser Leu Leu Asp  
385 390 395 400  
Asn Leu Leu Thr Ile Ala Pro Arg Asp Thr Ala Lys Ala Phe Arg Gln  
405 410 415  
Ala His Leu Ile Glu Leu Leu Cys Ser Ile Ala Asp Ala Thr Leu Ile  
420 425 430  
Gln Thr Cys Val Gln Glu Leu Arg Ala Leu Leu Pro Ser Ser Pro Pro  
435 440 445  
Ala Glu His Thr Gln Ala Gln Val Ser Phe Leu Leu Glu Tyr Leu Ser  
450 455 460  
Ser Leu Ser Arg Leu Leu Gln Ser Cys Leu Leu Val Glu Pro Asp Leu  
465 470 475 480  
Val Ile Gln Asp Glu Leu Val Lys Pro Leu Ile Thr Asn Ile Ile Gly  
485 490 495  
Ile Leu Thr Ile Cys Thr Lys Asp Val Leu Asp Lys Glu Leu Ile Ser  
500 505 510  
Ala Phe Tyr His Thr Trp Thr His Leu Phe Asn Leu Leu Ala Met Leu  
515 520 525  
Leu Arg Lys Ala Gly Ala Ile Thr Leu Pro Ser Val Thr Val Ala Leu  
530 535 540  
Ala Lys His Trp Thr Ala Ala Ile Asp Met Phe Cys Thr Cys Ala Gly  
545 550 555 560  
Leu Ser Ala Thr Cys Pro Ala Leu Tyr Thr Ala Ser Leu Gln Phe Leu  
565 570 575  
Ser Val Leu Leu Thr Glu Glu Ala Lys Gly His Leu Gln Ala Lys Ser  
580 585 590  
Lys Thr His Leu Cys Cys Ser Pro Thr Val Ala Ser Leu Leu Asp Asp

595 600 605  
Ser Gln Glu Asn Gln Lys Ser Leu Glu Gln Leu Ser Asp Val Ile Leu  
610 615 620  
Gln Cys Tyr Glu Gly Lys Ser Ser Lys Asp Ile Leu Lys Arg Val Ala  
625 630 635 640  
Ala Asn Ala Leu Met Ser Leu Leu Ala Val Ser Arg Arg Ala Gln Lys  
645 650 655  
His Ala Leu Lys Ala Asn Leu Ile Asp Asn Cys Met Glu Gln Met Lys  
660 665 670  
His Ile Asn Ala Gln Leu Asn Leu Asp Ser Leu Arg Pro Gly Lys Ala  
675 680 685  
Ala Leu Lys Lys Lys Glu Asp Gly Val Ile Lys Glu Leu Ser Ile Ala  
690 695 700  
Met Gln Leu Leu Arg Asn Cys Leu Tyr Gln Asn Glu Glu Cys Lys Glu  
705 710 715 720  
Ala Ala Leu Glu Ala His Leu Val Pro Val Leu His Ser Leu Trp Pro  
725 730 735  
Trp Ile Leu Met Asp Asp Ser Leu Met Gln Ile Ser Leu Gln Leu Leu  
740 745 750  
Cys Val Tyr Thr Ala Asn Phe Pro Asn Gly Cys Ser Ser Leu Cys Trp  
755 760 765  
Ser Ser Cys Gly Gln His Pro Val Gln Ala Thr His Arg Gly Ala Val  
770 775 780  
Ser Asn Ser Leu Met Leu Cys Ile Leu Lys Leu Ala Ser Gln Met Pro  
785 790 795 800  
Leu Glu Asn Thr Thr Val Gln Gln Met Val Phe Met Leu Leu Ser Asn  
805 810 815  
Leu Ala Leu Ser His Asp Cys Lys Gly Val Ile Gln Lys Ser Asn Phe  
820 825 830

Leu Gln Asn Phe Leu Ser Leu Ala Leu Pro Lys Gly Gly Asn Lys His  
835 840 845

Leu Ser Asn Leu Thr Ile Leu Trp Leu Lys Leu Leu Leu Asn Ile Ser  
850 855 860

Ser Gly Glu Asp Gly Gln Gln Met Ile Leu Arg Leu Asp Gly Cys Leu  
865 870 875 880

Asp Leu Leu Thr Glu Met Ser Lys Tyr Lys His Lys Ser Ser Pro Leu  
885 890 895

Leu Pro Leu Leu Ile Phe His Asn Val Cys Phe Ser Pro Ala Asn Lys  
900 905 910

Pro Lys Ile Leu Ala Asn Glu Lys Val Ile Thr Val Leu Ala Ala Cys  
915 920 925

Leu Glu Ser Glu Asn Gln Asn Ala Gln Arg Ile Gly Ala Ala Ala Leu  
930 935 940

Trp Ala Leu Ile Tyr Asn Tyr Gln Lys Ala Lys Thr Ala Leu Lys Ser  
945 950 955 960

Pro Ser Val Lys Arg Arg Val Asp Glu Ala Tyr Ser Leu Ala Lys Lys  
965 970 975

Thr Phe Pro Asn Ser Glu Ala Asn Pro Leu Asn Ala Tyr Tyr Leu Lys  
980 985 990

Cys Leu Glu Asn Leu Val Gln Leu Leu Asn Ser Ser  
995 1000

&lt;210&gt; 4374

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4374

Met Gly Trp Ser Asp Leu Gln Pro Ala Met Gly Gly Glu Ala Glu Arg  
1 5 10 15  
Phe Gln Ala Gln Leu Glu Val Lys Leu Val Thr Gly Gly Ser Pro Val  
20 25 30  
Val Phe Thr Gly Asn Leu Thr Arg Gln Val Gly Ser Lys Leu Ala Phe  
35 40 45  
Ser Ala Ser Leu Ser His Leu Leu Ser Asp Gln Ala Asn Val Thr Ala  
50 55 60  
Leu Leu Glu Arg Lys Glu Glu Asn Gly Arg Arg Val Ala Ala Leu Gly  
65 70 75 80  
Ala Glu Leu Phe Val Pro Gly Leu Val Gly Leu Arg Ala Leu Gly Leu  
85 90 95  
Leu Gln Gln Gln Gly Gln Leu Trp Thr Asn Ser Leu Arg Ile Gln Tyr  
100 105 110  
Ser Leu Leu Gly Gln Ala Lys Gln Ala Ala His Glu Cys Ser Thr Ser  
115 120 125  
Gln Lys Leu Arg Ala Asp Ser Gly Ser Asp Gly Ala Tyr Arg Leu Glu  
130 135 140  
Leu Arg His Glu Leu His Cys Thr Gln Ile Leu Ala Phe Ser His Lys  
145 150 155 160  
Val Gln Leu Trp His Glu Glu Asp Ser Gly His Leu His Ser Gln Leu  
165 170 175  
Glu Val Ser Tyr Gly Lys Gln Trp Asp Lys Asn Ser Asn Lys Arg His  
180 185 190  
Leu Arg Val Ser Gln Thr Phe Lys Asn Asp Ser Gly Pro Ala Leu Ser  
195 200 205  
Asn His Phe Met Glu Phe Val Leu Gln Val Pro Glu Arg Gln Val Asp  
210 215 220

Cys Arg Val Gln Leu Tyr His Leu Ser Leu Arg Leu Pro Tyr Val Glu  
225 230 235 240  
Ser Ser Ser His Leu Lys Val Gln Tyr Asn Gly Arg Pro Leu Phe Val  
245 250 255  
Ala Gly Gly Gln Trp Lys Asp Thr Ser Arg Ala Thr Leu Trp Lys Trp  
260 265 270  
Glu Gly Val Leu Asn Leu Asp Ser Pro Trp Leu Met Val Ser Ala Ala  
275 280 285  
His Arg Leu Tyr Trp Pro His Arg Ala Val Phe Gln Ala Val Leu Glu  
290 295 300  
Leu Thr Leu Gly Lys Ala Trp Thr Leu Lys Asp Leu Val Val Ser Val  
305 310 315 320  
Gly Cys Arg Ser Gln Gly Pro Asn Arg Glu Gly Lys Ile Gln Val Tyr  
325 330 335  
Thr Ala Ala Thr Thr Tyr Leu Arg Val Ser Thr Val Thr Val Leu Ala  
340 345 350  
Gln Ser Leu Phe His Ser Trp Ser Glu Leu Glu Ser Ala Trp Asn Thr  
355 360 365  
Ala Val Gln Gly Glu Ile His Ala Glu Asn Ser Arg Asp Arg Lys Ile  
370 375 380  
Leu Asn Cys Trp Leu Lys Gly Pro Gln Gln Glu Leu Asn Leu Thr Ala  
385 390 395 400  
Ala Tyr Arg His Leu Glu Trp Pro Arg Lys Thr Gln Val Ser Leu Thr  
405 410 415  
Ala Val Trp Ile Gly Ala Gln Gly Gln Pro Arg Gly Leu Gln Leu Glu  
420 425 430  
Gly Glu Leu Glu Glu Leu Arg Gln Asp Arg Thr Leu Tyr Arg Lys Arg  
435 440 445  
Gly Ala Leu Leu Leu Arg His Pro Leu His Leu Pro Ile Pro Gln Ser

450                      455                      460  
 Leu Leu Leu Gln Glu Thr Phe Thr Ala Asp Arg Arg His Gln Arg Tyr  
 465                      470                      475                      480  
 Ser Leu Glu Thr Arg Val Val Leu Asn Gly Arg Glu Glu Thr Leu Gln  
                          485                      490                      495  
 Thr Met Val Leu Gly Cys Gln Ala Gly His Pro Tyr Val Cys Ala Gly  
                          500                      505                      510  
 Leu Met His Pro Tyr Asp Gly Lys Val Ile Pro Arg Asn Thr Glu Gly  
                          515                      520                      525  
 Cys Leu Val Thr Trp Asn Gln His Thr Ser Leu Ala Leu Leu Ser Gly  
                          530                      535                      540  
 Leu Glu Ser Gly Val Gln  
 545                      550

&lt;210&gt; 4375

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4375

Met Gln Ala Pro Ile Pro Pro Pro Glu Pro Phe Cys Ala Ser Ser Gly  
     1                      5                      10                      15  
 Pro Pro Cys Trp Ser Thr Phe Ser Arg Lys Leu Ser Gln Ala Arg Pro  
                          20                      25                      30  
 Val Lys Leu Ser Phe Leu Pro Gln Ser Ser Leu Ala Pro Pro Ala His  
                          35                      40                      45  
 Thr Ala His Gln Ala Leu Ala Leu Arg Pro Gln Pro Ala Ser His Arg  
                          50                      55                      60

Val Gly Pro Phe Leu Pro Gln Pro Gly Gln Gly Thr Ser Ser Val Ile  
65 70 75 80  
Ser His Thr Pro Ser Thr Ala Arg Ile Ala Gly Ala His Ile Gly Leu  
85 90 95  
His Thr Gly Pro Trp Leu Leu Leu Leu Pro Gly Trp Ala Gly Arg Gln  
100 105 110  
Gly Pro Gly Trp Ala Trp Gly Gly Ser Ser Leu Trp Ala Gly Leu Thr  
115 120 125  
Val Ser Thr Val Trp Gly Phe Arg Glu Asp Cys Ser Ser Pro Gly Leu  
130 135 140  
Pro Gly Val  
145

&lt;210&gt; 4376

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4376

Met Gly Thr Ala Tyr Val Ala Leu Pro Gln Pro Ser Ser Met Gln Trp  
1 5 10 15  
Pro Gly Ser Asn Gln Arg Ser Pro Gly Arg Val Ser Cys Lys Asn Leu  
20 25 30  
Gly Lys Arg Ala Gln Gly Gly Cys Arg Leu Leu Thr Ala Cys Leu Asp  
35 40 45  
Arg Pro His Gly Ala Ser Pro His Ile Ala Arg Ala Leu Ala Ser Pro  
50 55 60  
Leu Pro Thr Cys Lys Arg Gly Cys Trp Gln Gln His Phe Thr Thr Arg

65	70										75					80				
Asn	Leu	Tyr	Ser	Asn	Ser	Lys	His	Ala	Leu	Thr	His	Ser	Val	Asn	Tyr					
				85					90					95						
Pro	Leu	Ser	Trp	Pro	Thr	Glu	Val	Asp	Ser	Phe	Arg	Pro	Pro	Phe	Val					
				100					105					110						
Gln	Met	Arg	Lys	Leu	Arg	Leu	Thr	Pro	Lys	Pro	Gly	Gly	Phe	Gln	Met					
				115					120					125						
Trp	Ser	Gly	Ser	Leu	Cys	Pro	Gly	Asp	Glu	Gly	Thr	Arg	Arg	Val	Trp					
				130					135					140						
Ser	Arg	Ala	Gly	Val	Gly	Leu	Arg	Cys	Ser	Arg	Leu	Ala	Val	Lys	Gly					
				145					150					155						
				160					165											
Ala	Arg	Cys	Glu	Pro	Gly	Cys	Trp	Val												
165																				

<210> 4377

<211> 30

<212> RNA

### <213> Artificial Sequence

 $\langle 220 \rangle$ 

<223> Description of Artificial Sequence: an artificially synthesized oligo-cap linker sequence

<400> 4377

agcaucgagu cggccuuguu ggccuacugg 30

<210> 4378



<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized oligo(dT) primer sequence

<400> 4378

gcggctgaag acggcctatg tggccttttt tttttttttt tt 42

<210> 4379

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized primer sequence

<400> 4379

agcatcgagt cggccttggt g 21

<210> 4380

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized primer sequence

<400> 4380

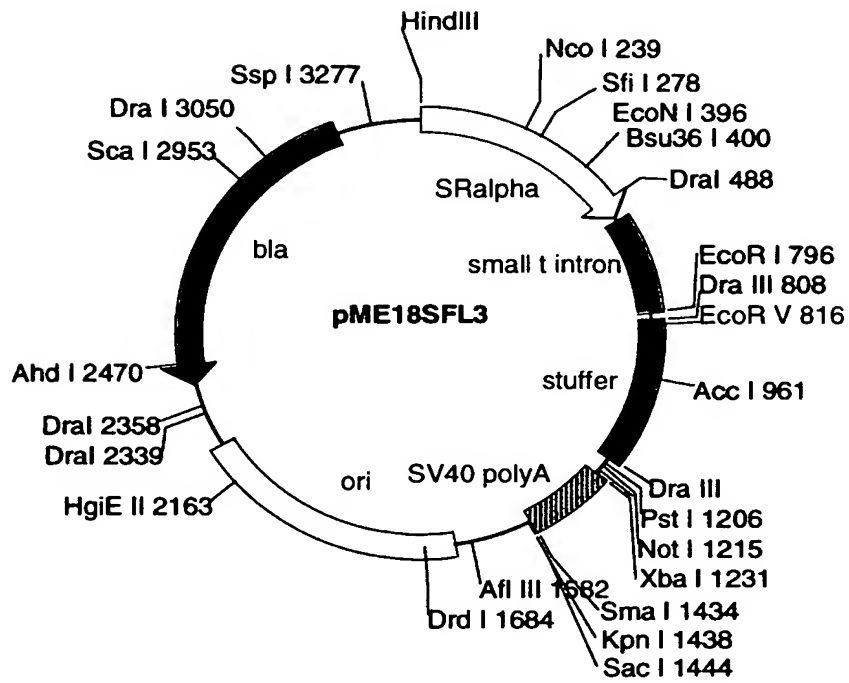
gcggctgaag acggcctatg t 21

【図面の簡単な説明】

【図 1】 pME18SFL3のベクターのマップ

【書類名】 図面

【図 1】



【書類名】 要約書

【要約】

【課題】 新規な全長cDNAの提供。

【解決手段】 ヒトに由来する 2 1 8 8 のcDNAを単離した。そしてこのcDNAの全長塩基配列、並びにこの塩基配列によってコードされるアミノ酸配列を明らかにした。本発明のcDNAは全長であるため、翻訳開始点を含み、蛋白質の機能解析において有用な情報を与える。

【選択図】 なし

特願 2 0 0 3 - 1 0 2 2 0 6

出 願 人 履 歴 情 報

識別番号

[ 5 0 2 2 3 5 5 2 2 ]

1. 変更年月日

2 0 0 2 年 6 月 2 8 日

[変更理由]

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